

HONEY LAKE UPDATE

Honey Lake Technical
Committee

December 9, 2010

WHAT IS THE NEED?

Dam failures during prior rainfall events in Burlington County caused dam failures and major damage.



WHAT IS THE NEED?

NJDEP now seeks to insure all existing dams in the state are properly classified and evaluated to protect public safety



WHAT ARE THE FACTS?

■ Sponsorship

- Original sponsors were the Stony Brook Millstone Watershed Association and the Mercer County Soil Conservation District.
- Stony Brook Millstone Watershed dissolved its sponsorship in 2003.
- Mercer County Soil Conservation District sponsorship includes a maintenance easement for the dam and flood easements for the entire lake area.
- Mercer County Soil Conservation District 50-year sponsorship expires in 12/31/2013.

WHAT ARE THE FACTS?

■ Classification

- The dam was originally classified as Low Hazard when constructed in 1964.
- The dam is high hazard due to potential impacts to downstream life and property.
- High Hazard classification drives the need for major modifications to protect downstream life hazards.

WHAT ARE THE FACTS?

- Costs

- The high hazard classification and resulting major modifications to protect downstream life hazards is estimated to cost \$2,268,000-\$4,000,000.

WHAT ARE THE FACTS?

■ Funding

- The Mercer County Soil Conservation District is no longer eligible to sponsor under federal guidelines.
- NJDEP has access to \$1,000,000 which can be used to decommission and remove the dam if necessary.
- Cost share funding (65%) potentially available from NRCS if a suitable public sponsor enters into a sponsorship agreement with NRCS for the next 50 years.

WHAT ARE THE FACTS?

- Suitable Public Sponsor
 - Ability to acquire any necessary land rights
 - Taxing authority to be able to fund operation and maintenance costs over the 50 year life of the rehabilitated dam

WHAT ARE THE FACTS?

- Entities Suitable to be a Public Sponsor
 - State
 - County
 - Township

WHAT ARE THE ISSUES?

■ Sponsorship/Ownership

- The Mercer County Soil Conservation District is not eligible to sponsor under federal guidelines.
- NRCS can neither sponsor nor own the dam.
- NJDEP Dam Safety is not capable of sponsorship.
- NJDEP Fish and Wildlife Service is capable of sponsorship. Lack of public access/use prevents sponsorship by this entity.
- Mercer County is capable of sponsorship. Lack of public access/use prevents ownership by this entity.
- Hopewell Township is capable of sponsorship. Lack of public access/use prevents ownership by this entity.
- Contiguous land owners may organize and accept ownership.

WHAT ARE THE ISSUES?

- High Hazard Classification

- *Downstream property owners HAVE NOT done anything inappropriate to cause the high hazard classification.*
 - *One home existed prior to the lake's construction (late 1800's)*
 - *The other home received all necessary permits prior to construction and prior to the NJDEP high hazard determination.*

WHAT ARE THE ISSUES?

- Eliminating the high hazard classification would require:
 - The downstream home site closest to the dam to be relocated hundreds of feet away from the dam.
 - The home site adjacent to Elm Ridge Road to be acquired and the home demolished.

FINAL ALTERNATIVES

No Action

NOT ACCEPTABLE UNDER SAFE DAM ACT

Does not meet NJDEP dam safety criteria

Cost: \$0

Dam Remains High Hazard

Alternative 1C

Rehabilitate existing dam by lowering water level 1.5 feet

(Reduces lake surface area from 27 acres to 20 acres)

Add 200 foot wide spillway & raise top of dam by 1 foot

Cost: \$3,780,000

Dam Remains High Hazard



FINAL ALTERNATIVES

Alternative 2B

- Lower water level 1.5 feet
- *(Reduces lake surface area from 27 acres to 20 acres)*
- Dam embankment reinforcement

Cost: \$2,760,000

Dam Remains High Hazard



FINAL ALTERNATIVES

Alternative 2E

- Dam embankment reinforcement without NRCS involvement

Cost: \$2,268,000

Dam Remains High Hazard



Decommissioning

- Remove Dam and restore stream bed

Cost: \$2,520,000

Dam removed in its entirety



REQUIRED DECISIONS

- Mercer County Soil Conservation District has indicated it will terminate its sponsorship at the expiration of its 50 year term. This requires that a new sponsor be named or the NJDEP Dam Safety will consider this an orphan dam and will direct its decommissioning:
 - New sponsors may be with an organization of lot owners, a public entity (State, County, Township) or a combination of both.
 - Public sponsorship presumes expenditure of public funds which typically requires public accessibility.

REQUIRED DECISIONS

- Funding for modifications required by NJDEP Dam Safety:
 - Cost share funding (65%) potentially available from NRCS if a suitable public sponsor enters into a sponsorship agreement with NRCS for the next 50 years. Suitable public sponsor includes a public entity which has the ability to acquire any necessary land rights and has taxing authority to be able to fund operation and maintenance cost over the 50 year life of the rehabilitated dam.
 - Use of public funds typically requires public accessibility.
 - Funds available NJDEP if sponsorship includes a public entity.
 - Other possible sources of fund include:
 - NJDEP Environmental Infrastructure Trust (EIT).
 - Public/private partnership.

HONEY LAKE TECHNICAL COMMITTEE

- Paul Pogorzelski, Hopewell Township Administrator/Engineer
- William Brash , Director, Mercer County Soil Conservation District
- Greg Sandusky, Mercer County Engineer
- Michael McKay ,Vice President Facilities, Princeton University
- Frank Minch, NJ Department of Agriculture
- Clint Oman, Senior Civil Engineer, NJDEP Dam Safety
- James Waltman, Executive Director, Stony Brook Millstone Watershed
- David Lamm, State Engineer, USDA NRCS
- Greg Westfall, Water Resource Planner, USDA NRCS