

Start with the evidence

For providers and contractors documenting a pond assessment. A separate homeowner guide is available.

TLDR

A falling water level is an observation, not a diagnosis. Start with pond history, check for structural warning signs, and compare the change in storage with weather, inflows, pumping, withdrawals, and outflow. Use soil profiles and site evidence to select a repair. Treatment through the water may fit some soil-seepage cases; damaged structures require their own assessment. Record conditions before and after treatment so an apparent improvement can be checked against changes in water supply.

Assessment checklist

- ☐ Record whether the pond ever held its intended level, when the loss began, and what changed nearby.
- ☐ Define the desired water level, seasonal tolerance, uses, and the owner's priorities.
- ☐ Record water levels from a fixed reference; note rainfall, pumping, withdrawals, and visible inflow or outflow over the same dates.
- ☐ Gather mapped soil profiles, construction records, imported-fill details, test results, and dated photographs. Treat mapped soils as screening information.
- ☐ Observe the embankment, downstream toe, outlet, and shoreline from safe locations. Mark the locations of wet areas, burrows, settlement, or damaged structures.
- ☐ Record previous treatments, quantities, dates, application areas, water levels, and the outcome observed.
- ☐ Document equipment access, fish or other uses, and whether drawdown is feasible before comparing repair methods.

Checked means documented, not approved or diagnosed. Leave unresolved items unchecked and explain them in the notes.

Describe your pond

Fill digitally in a PDF application that supports forms, or print and write. Save a copy after entering information.

Pond name / location / owner or contact

Pond area and depth; units and source (measured / estimated / unknown)

Has it held water? When did the change begin?

Intended use, target level, and acceptable seasonal variation

Water sources, outlet, well controls, withdrawals, and recent changes

Soil / construction information; imported fill; test results or report references

Previous repair or treatment: date, product / method, amount, area, and outcome

Access, drawdown constraints, photographs, and unresolved observations

Water-level observation log

Repeat this page for each observation. Use the same reference and units; identify measurements and estimates.

Pond / observer / date and time

Fixed reference and method (e.g., staff gauge); water-level units

Water-level reading; measurement uncertainty if known

Period since last reading; rainfall amount, units, and data source

Pumping / withdrawals: meter readings or rate x time; units; measured or estimated

Inflow / outflow: observations or measured volumes; units; unknowns

Weather / runoff model period and source; avoid counting the same inflow twice

Visible seepage, sediment, equipment changes, treatment, and photo references

Do not label a water-level drop as seepage without accounting for the other water-balance terms. Changing pond area, water level, and uncertain groundwater exchange can affect the interpretation.

Turn observations into a plan

When structural warning signs appear

New sediment-laden discharge from a dam, enlarging holes, settlement, or rapidly increasing seepage call for prompt assessment by a qualified dam professional. Follow an existing emergency action plan. If people or property face immediate danger, contact emergency services. Do not excavate or plug a dam defect on the basis of this checklist.

Review before choosing a treatment

- ☐ Compare observed water loss with weather and operating records over matching periods. Include watershed runoff where relevant and state model uncertainty.
- ☐ Distinguish distributed soil seepage from a damaged outlet, embankment defect, or inadequate supply. Identify what remains unverified.
- ☐ Compare suitable methods with preparation, access, application requirements, delivered materials, and ongoing costs included.
- ☐ Agree on a monitoring plan before treatment. Record the intervention and compare results under documented conditions afterward.

Working explanation and evidence still needed

Next action / responsible person / follow-up date

Next steps and supporting guidance

- Natural Waterscapes pond soil and leak evaluation
- MyPond: organize your pond information
- NRCS Pond Standard 378: use applicable state and project criteria

This worksheet supports assessment; it is not a treatment prescription or an engineering acceptance record. Prepared from the Natural Waterscapes technical interview, with NRCS guidance as a supporting reference.