

DAM SAFETY NEWS

Performing Owner-Responsible Inspections

Many dam owners have yet to perform a dam inspection under our new statutory requirements. Below is a summary of inspection expectations. Meeting these expectations will ensure a smoother and quicker inspection review. The forms and documents required for an inspection can be found on the WDNR Dam Safety page under Inspections: <http://dnr.wi.gov/topic/dams/>. Directions on how to determine when your dam is scheduled for inspection can be found on page 4.

1. Complete and satisfactory dam safety inspections that consulting engineers perform on behalf of dam owners will include:
 - File research;
 - Visual inspection of the dam; and
 - Documentation of the inspection on checklists and in photos.
2. Consulting engineers should complete the tasks indicated on the Consultant Inspection Process Form. This form must be submitted with every owner inspection report. The Inspection Program Fact Sheet provides detailed guidelines for the inspection process.
3. File Research is a necessary part of any inspection. The owner or consultant can view the Department's historic files by contacting the Dam Safety Engineer for the county in which the dam is located. A staff directory is available on the WDNR Dam Safety page under Resources: <http://dnr.wi.gov/topic/dams/>.
File research includes review of:
 - Checklists, photos and reports from past inspections;
 - Mapping of previously completed dam failure analyses; and
 - Air photos and zoning mapping for obvious development in the floodplain.
4. Visual Inspection of the dam must be done as part of any inspection. The visual inspection consists of three major tasks:
 - Preparing an inventory of the dam components;
 - Checking for defects at the dam that affect the safety of the dam; and
 - Evaluating the land uses downstream of the dam.
5. The engineering consultants should be using the Dam Inspection Checklist when inspecting the dam. Use of the checklist will provide consistency for inspections from year to year, leading to a more efficient and accessible review process.

The checklist was designed to take into consideration a wide variety of dams and dam components in the state, and covers all aspects of a dam inspection for which the Department needs documentation. The checklist was also designed to incorporate the data necessary for us to upload into the database.

6. Documentation of the inspection must be submitted as part of the report. A dam safety inspection report, photos and supporting documentation will be prepared and sent to the Department for review and concurrence with the recommendations. Specific requirements on submitting an inspection report can be found at <http://dnr.wi.gov/topic/dams/inspections.html> under "Report Preparation of Inspections" and elsewhere in this newsletter.



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Inspection Report Submittal

As our first year of owner-responsible inspections comes to a close, staff have noted a wide variation in the inspection reports from owners' consultants. While some submittals are exactly what we hoped to see, others are incomplete.

Consulting engineers are required to submit an inspection report on behalf of the dam owner to the department within 90 days of completing the inspection. To be considered complete, an inspection report submittal must include two (2) paper copies and one (1) electronic copy (PDF) of:

- Consultant Inspection Process Form;
- Inspection Checklists, completed;
- Survey data and logs;
- Report, including findings, recommendations for repairs and the time frames as determined by the consultant; and
- Printed and digital copies of individual photographs, following the photo instructions provided on the Dam Safety website.

The following is a list of items frequently not found in submitted inspection reports:

1. An electronic version of the inspection report. We often get only a paper copy of the report. Please also send the inspection report in PDF format.
2. An electronic version of the individual photos from the report. The photos should be in JPG format, following the photo instructions on the Dam Safety website: <http://dnr.wi.gov/topic/dams/inspections.html> under "Report Preparation of Inspections".
3. A completed Consultant Inspection Process Form. The form should be filled in with the dates when the tasks were completed. Completion of the form will aid in providing staff with the required information.
4. Completed inspection checklists. All necessary inspection checklists must be completed for the specific inspection locations that apply to the individual dam.
5. Consultant recommendations and timeline. The recommendations of the consultant for repair or reconstruction must be submitted. The report must also include a date by which the consultant thinks the repairs should be made to comply with industry safety standards.

The forms and documents required for an inspection can be found on the WDNR Dam Safety page under Inspections: <http://dnr.wi.gov/topic/dams/>. The instructions for preparing and submitting a report can be found at <http://dnr.wi.gov/topic/dams/inspections.html> under "Report Preparation of Inspections" If you or your consultant have questions about this process, please contact us prior to submitting your inspection report. A link to the staff directory can be found under Resources: <http://dnr.wi.gov/topic/dams/>.



Spring Flooding Outlook

The National Weather Service (NWS) is currently indicating that this Spring's Flooding Outlook for Wisconsin is for "mostly near normal or below normal runoff". This is largely due to the lack of snow cover. Even the recent snow did little to change that outlook.

For more specific information on the NWS spring flooding outlook go to the NCRFC Spring Hydrologic Outlook page at: <http://www.crh.noaa.gov/ncrfc/>.



Spring Cleaning Tips

Spring cleaning is not just for the house. Dam owners also need to do some "spring cleaning" to ensure their dam is ready for the new season. Some spring cleaning tips include:

- Debris clean up – clean debris from the gates, spillways and other outlet structures. Debris accumulates all year, but it is very important to clear the branches, weeds and other accumulated debris from your dam before spring flooding. Debris in the spillway and gates severely reduces the capacity of the dam and often leads to overtopping during high flows.
- Gate operation – Check your gate operators. If you have chains to lift gates, be sure they are in good condition and will not fail if you are faced with opening gates or pulling logs. Get the grease gun out and lubricate the motors and gate stems. Find your gate wheels, keys to the fences, pike poles and gaff hooks and put them in a place that is easily accessible during a flood event.
- Structural inspection – Walk the dam and note problems that have developed during the winter months. Take pictures and document ice and freeze/thaw damage, scour, erosion, seepage or piping, and other changes that could affect how your dam operates, both under normal and flooding conditions. If you see serious problems, notify your consultant engineer now, before spring thaw.
- Review IOM/EAP – Review the documents you have developed for Inspection, Operation and Maintenance, as well as Emergency Action. Revise telephone lists, if necessary, and your list of suppliers for emergency resources. Make sure that you let everyone on the sign-off know changes you have made.

How to Transfer Ownership of a Dam

Buying or selling a property which includes a dam (or any portion of a dam) can sometimes be a confusing process and sometimes lengthy process. If you are considering selling or buying a property which includes a dam, notify your real estate agent early in the transfer process. Realtors, attorneys, and lenders are required by law to advise clients of these requirements. If dam transfer requirements are not met, the real estate transaction may be voided.

In general, both the seller of property on which a dam is located and the buyer of the property must cooperate to complete a dam transfer application. An inspection is required prior to transferring the property and dam, as well as a description of any repairs needed to bring the dam into compliance with safety standards. The buyer must show financial capability to maintain the dam for a minimum of 10 years and a permit may be required. While certain actions are required for all dam transfers, the details of the transfer process are site and dam specific.

State regulations also limit who can assume ownership of a dam. Under Ch. 31, Stats., lake districts formed under Ch. 33, Stats., have been considered municipalities. Ownership of a dam can be transferred from:

- a private individual to another private individual;
- a private individual to a municipality; or
- a municipality to another municipality.

Under no circumstances may a foreign individual or corporation assume ownership of a dam nor may a dam be transferred from municipal ownership to private ownership. Also, dams constructed as part of a cranberry operation are exempted from state regulations regarding the transfer of ownership. The transfer of the ownership of a dam or the ownership of specific piece of land on which a dam is physically located without following the transfer process can result in the transfer being voided.

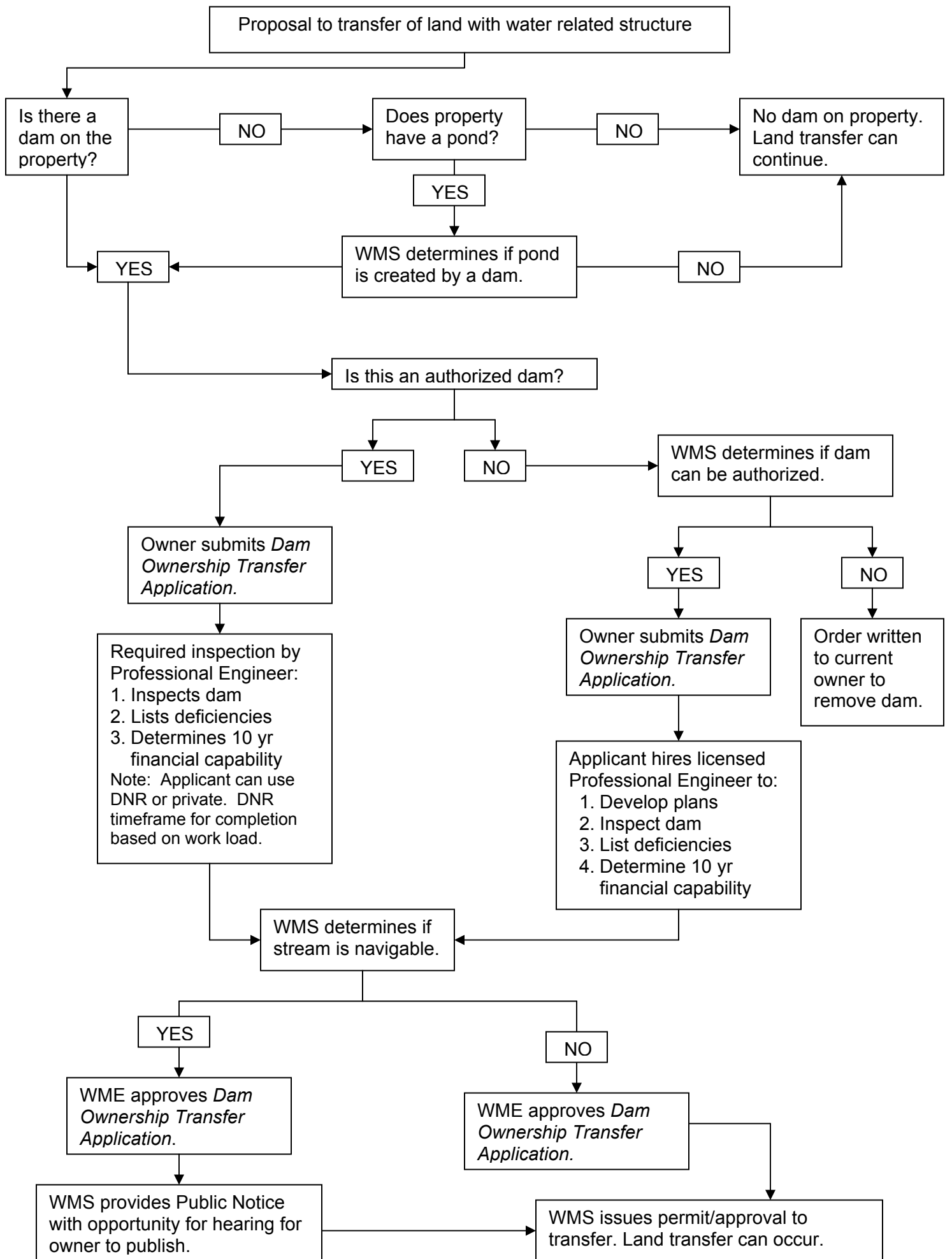
The chart on the following page provides an outline of the process to transfer ownership of a dam. However, because the details of the transfer process are site and dam specific, dam owners should always contact the Regional Water Management Engineer or Specialist before being the transfer process.

Checking Inspection Schedules On-line

Owners of large dams are required have their dams inspected under the schedule set out in Ch. 31, Stats. Failure to do inspections during the scheduled years or failure to follow up with the needed safety repairs may necessitate enforcement action against owners by the DNR.

The inspection schedule can be found on the DNR Dam safety website at <http://dnr.wi.gov/topic/dams/> under Inspections. To determine when a specific dam is scheduled for inspection click on "Dam Search" and choose either "Individual Dam Search" or "Inspection Schedule by Year". If using the "Individual Dam Search" option enter the dam name and then choose "Search", "View Dam" and "Schedule". This will bring up a chart showing the inspection year and who is responsible for the inspection. If choosing "Inspection Schedule by Year" enter the year and either "All" or the specific county. The data can be exported to a PDF or Excel format.

The DNR Dam Safety's goal is to ensure that all dams in the state are safe, and meet the objective to protect life, health and property. We hope you recognize your responsibility under Ch. 31 of the State Statutes to meet these safety goals and will work to avoid enforcement action on our part.



Dam Emergency – Who Do You Call?

If despite your best efforts at maintaining your dam, an emergency arises, the first thing to do is to open your Emergency Action Plan (EAP) and follow the steps outlined. If for some reason, you do not yet have an EAP for your dam and failure is imminent, then call 911 and be prepared to provide the following information to the 911 operator:

- name and title of the person reporting the incident;
- callback number of the person reporting the incident
- name/location of the dam including county, waterbody and nearest road; and
- present condition of the dam such as perceived problem, gate status or level of pond in relation to low point in the embankment.

***Under any circumstance, if failure is imminent, call 911 first!
And then call***

**Wisconsin Emergency Hotline
1-800-943-0003 (24 hour)
Press "1"
Ask for "DNR Duty Officer"**

Updating an Emergency Action Plan

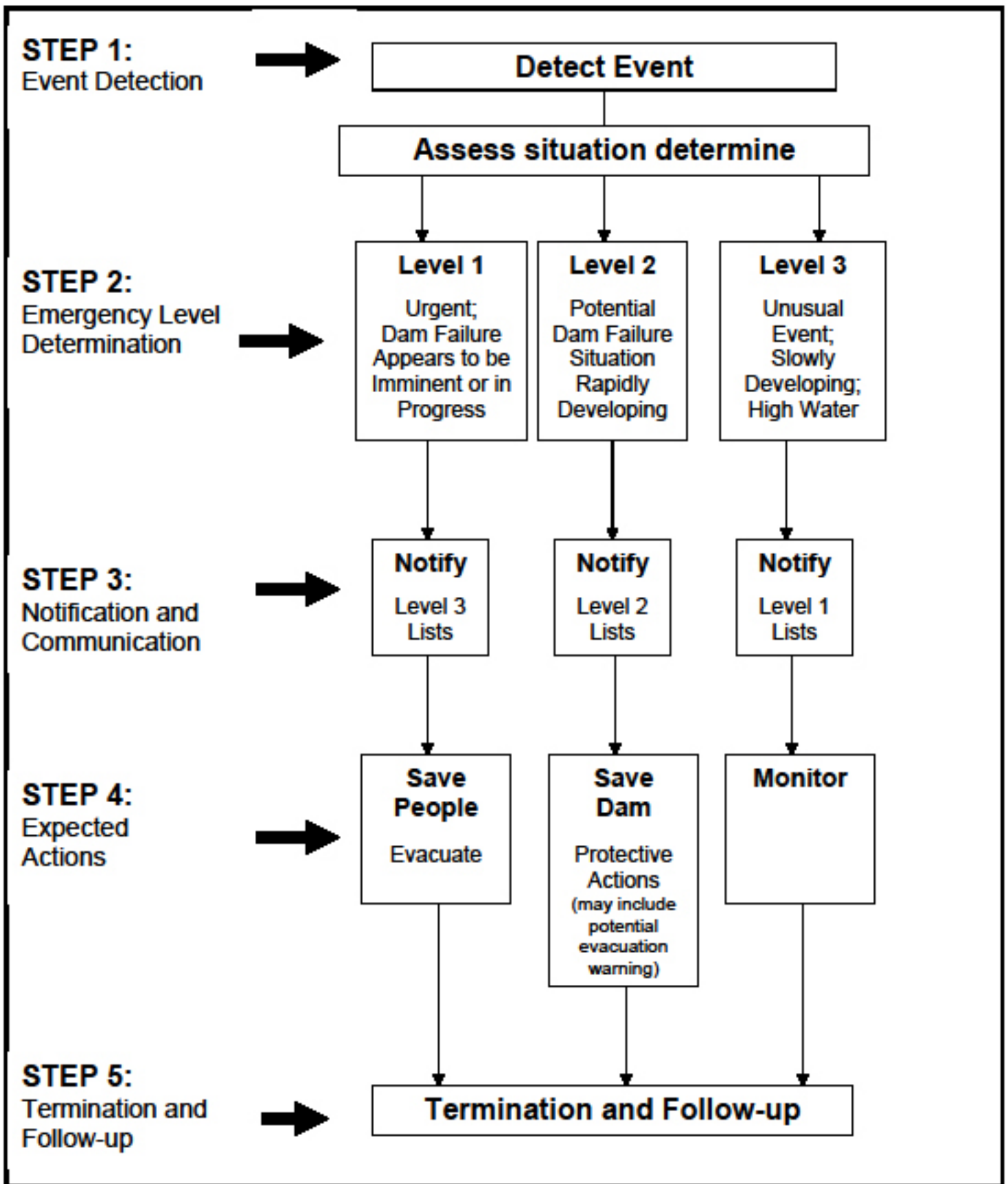
All large dams are required to have an Emergency Action Plan (EAP). Once the EAP is in place, it should be reviewed annually for any changes such as changes contact information or personnel. Also, dam owners should contact the DNR to determine if any updates or changes have been made to the template.

One change has been made to the template related to the *Level of Emergency Determination Chart*. The levels of emergency were reordered so that the chart would be compliant with the National Incident Management System (NIMS). NIMS was developed by the Department of Homeland Security to provide a systematic approach to enable all entities responding to an emergency to work seamlessly together in order to reduce the loss of life and property and harm to the environment. The updated chart on the opposite page can be printed and used to replace the old chart in any existing EAP.

If you are interested in writing an EAP for your dam, the DNR publication *A Guide to Writing Emergency Action Plans* along with a template EAP can be downloaded in PDF format at: <http://dnr.wi.gov/topic/dams/documents.html>. If you would prefer the documents in Word format, contact Miriam Anderson, Planning Specialist at dnrdamsafety@wisconsin.gov.

Email Notification of Updates

Wisconsin *Dam Safety News* is planning to be an electronic-only newsletter highlighting news and updates for dam owners, consultants, and other interested parties. If you are interested in receiving this newsletter via email, please go to <http://dnr.wi.gov/topic/dams/newsletters.html> to subscribe under DNR Updates. Copies of this newsletter in PDF format can be found at: <http://dnr.wi.gov/topic/dams/newsletters.html>.



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For further information regarding the Wisconsin Dam Safety Program, please visit our website at: <http://dnr.wi.gov/org/water/wm/dsfm/dams/> or email: dnrdamsafety@wisconsin.gov.
