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# NYACD Comments Concerning Draft DEC Dam Safety Regulations

## Language Clarifications and Interpretations

At several locations in the draft regulations, there are sections with a significant lack of clarity in the language. If the regulations are adopted as proposed, these sections will lead to:

- confusion,
- a failure to improve safety,
- inconsistency between DEC's regional offices,
- wasted costs, and
- litigation.

We request that the Department re-write these sections to clarify them and to reduce the need for interpretations.

1) **Dam owner definition.** In section 673.1(j), the definition of “dam owner” is mostly unchanged in the proposed regulations, when compared with the existing regulations. However, the scope of ownership has been increased in meaning because the regulations propose to increase considerably the responsibilities of dam owners. The definition in this section designates people that repair or even use a dam as owners. This poor definition will produce very confusing results. Does it mean that an engineer hired to perform an assessment is defined as a “dam owner”? Does the definition include the recipient of electricity generated by a hydroelectric dam? Most states define a dam owner as a person with legal title or authority to make significant decisions about the dam. A definition along those lines would be much clearer and is needed.

2) **Mixed use definition.** Section 673.1(q) defines farm pond dams, but does not address how a pond might be classified if it were to be used for mixed-use purposes; for example, a private pond for recreational purposes into which the Department has reintroduced river otters for repopulation purposes. The section also does not indicate who makes the classifying decision.

3) **Farm pond wording.** The DEC Rural Area Flexibility Analysis for the proposed regulations, states, “The proposed regulations are not applicable to farm pond dams or to dams below the permitting thresholds.” The scope of the regulation is not clear. Does this statement in this document which accompanies the draft regulations reflect the meaning within the regulations. We request that wording be added to make it clear.

4) **Farm pond exemption.** Section 673.2(b) appears to say that farm pond dams are

exempt from other provisions of the Part regardless of whether they are below permitting thresholds -- but they still may be subject to permitting requirements in 673.4 and 608 if they meet certain height or capacity limits. This section should clearly state that farm pond dams are not automatically exempt from permitting requirements to avoid confusion.

5) **Exemption wording conflict.** §673.2(a) requires that all dams are to be maintained in a safe condition. However, §673.2(b) exempts farm ponds from other provisions in the regulations. Are they exempt from the word “all” in the previous section or not?

6) **Safe condition.** Section 673.2(a) requires all dams to be maintained in a safe condition, but remains otherwise unexplained. If this section contains no specific requirements that define a safe condition or penalties for failure to meet those requirements, it should be revised and moved to a more appropriate Part, such as one containing general legislative findings or statements.

7) **Classification changes.** The proposed regulation would require that a hazard classification be conducted every ten years. This may need to include Class A farm ponds, including ponds which are under the permitting threshold. These structures could have turned into hazard Class B or C, not due to any change in the dam, but because of development downstream since the time of the classification. Hazard classifications do not solely reflect the condition of dams, but also of other structures, over which the dam owner has no control. The regulations should be clear on what is required of the owners. This point will affect hundreds of owners.

8) **Departmental liability.** Section 673.3(c) is confusing and unclear. If the Department of Environmental Conservation intends to disclaim liability for its actions made under the authority of the dam safety regulations, it appears it may do so without enumerating the specific actions authorized by the regulations. For example, Rhode Island has a short, clear section that, in summary, says: 1) Owners are responsible for all damage to property or persons stemming from operation or failure of the dam; and 2) The dam safety regulations do not lessen or relieve any of that liability and do not create liability on the part of the Department (RI Department of Environmental Management, Rules and Regulations for Dam Safety, Rule 4). It is also unclear if the Department is attempting to disclaim liability for its decisions beyond the scope of what qualified immunity would normally provide.

9) **Meaning of terms.** In section 673.5, the Department exchanges the adjectives “significant” and “serious” for “substantial” when discussing the level of damage used to assess hazard classifications. Without further explanation, however, this makes no meaningful change to the regulations since they are subjective, discretionary standards. If the Department intends to make a substantive change in the meaning, it should elaborate. In another context with regard to Class B dams, the word “intermediate” is used. We request that the regulations be clarified on these points.

10) **Impoundment definition.** Does the proposed definition of impoundment include water which is below grade? DEC should provide a formula for how determining impoundment capacity. We understand that a landowner may not need to account for the water that is impounded below original ground. This should be part of the worksheets proposed above.

## **Substantive Issues**

Apart from unclear language in the draft regulations, we believe that the regulations as proposed contain several significantly flawed legal concepts. These concepts present serious legal threats to the owners of dams and do not provide them or the State the protection of necessary legal procedures. These concepts will lead to litigation and will slow down the implementation of actual safety improvements for the public. They are explained below.

11) **Classification impact.** Does every dam structure need a hazard class assignment? If every dam structure, including dams below hazard Class A, needs a class hazard assignment, then could this requirement reduce wildlife habitat and flood attenuation, due to the cost of the engineering services which would be required, resulting in less interest in wetland construction? What would be the environmental effect of this requirement?

12) **Below-threshold classification.** It is unclear if the Department intends to classify every dam in New York State, including those which are far below the permitting thresholds. If so, would every dam owner have to pay for the initial classification of their dam? Requiring every dam owner, even owners of dams that will clearly be exempt under §673.2(b), would create a hardship for owners of very small dams. It could also create a disincentive to build ponds for environmental or conservation purposes.

13) **Overuse of discretionary terms.** The revised §673.2 provides that a dam is exempt from regulation if it is a Low Hazard dam (farm pond or Class A below permitting thresholds). The potential hazard of a dam, however, is determined in 673.5 by entirely discretionary language such as “substantial damage” and “isolated homes.” This language is subject to a wide range of acceptable interpretations. As a result, a person building a farm pond dam can not easily predict whether his dam will be an exempt low hazard dam, or a heavily regulated intermediate hazard dam, because he can not confidently make assumptions about the Department's interpretation of these very subjective terms. States like Connecticut have made the process more predictable by providing some concrete standards; for example, the Connecticut regulations clarify that minor damage includes a rise in floodwaters less than 1.5 feet. Another example is a velocity multiplied by depth formula which the USDA Natural Resources Conservation Service uses to determine flooding impact. The Department of Environmental Conservation should provide some similar guidance for dam owners, such as defining “isolated” in terms of a specific range of population density. In a

densely populated region of the state, “isolated” may mean something far different from what it might mean in a remote region. The regulations need a reasonable basis, not vague terms which require subjective interpretations. The unpredictability of these terms is fundamentally unfair. Guidelines or definitions of these terms is necessary.

14) **Unpredictable changes in classification.** Since the hazard classification of a dam is largely dependent upon how downstream development would be affected in case of dam failure, a dam owner is unable to control the hazard classification of his dam. As a result, downstream development could cause a low hazard, exempt dam to become a high hazard dam without any fault on the part of the dam owner. The unpredictability of hazard classification within the draft regulations will deter the creation of new dams and will encourage the removal of dams which were built for conservation or public interest purposes.

15) **Public interest dams different.** Public interest dams provide no personal benefit to the owner which offsets the regulatory burden of ownership. Therefore, due to these new regulations, a risk-averse owner will either not build or will remove, a dam that he or she believes may become subject to heavier regulation. The Department should implement some kind of protection for dam owners who maintain dams for the public interest. Protections could include free inspections by the Department, earmarking repair funds, creating a framework for negotiating land use policies with local government, or training and funding Conservation Districts to perform some inspection tasks to reduce engineering costs for owners.

16) **Communication requirements.** The new regulations substantially increase responsibilities for dam owners, but fail to create procedures that allow for dam owners to participate in the regulatory process. The proposed regulations don't allow for enough partnership between the Department, dam owners, and other significant parties. One example of this is that the proposed regulations allow the Department to issue orders and direct a dam owner to take action without considering the interests of other major parties, such as local governments, Conservation Districts, owners of cottages on affected lakes, or other interests. Lack of communication with third parties means that the Department could compel action that local government believes is not in the best interest of the community. For instance, a Conservation District may have plans to convert an aging dam into a wetland project. Without communication procedures in place, the Department may issue a conflicting order that is less optimal for the local water system. The Department should create procedures for basic communication with fundamentally involved parties such as municipalities and Conservation Districts to ensure that all options have been weighed and important local considerations have been met.

17) **Notification inadequacies.** A second example of the failure of the proposed regulations to create procedural protections for dam owners concerns notification. What has the Department of Environmental Conservation done to notify private and public owners of dams of the existence of these proposed new regulations and the impacts the regulations would have on them, should they be adopted? According to the

Department's *Regulatory Flexibility Analysis for Small Businesses and Local Governments*, "Information was sent to all dam owners listed in the department's dam inventory database." However, we have consulted with the owners of seven dams, none of whom has received any such notice. Further, we have analyzed the geographic coordinates given in the Department's database as the locations of certain dams and found that they identified corn fields instead of dams. What are the Department's plans for the future in regard to the quality of its data and to the adequate notification of owners?

18) **Transparency and response requirements.** A third example of the failure of the proposed regulations to create procedural protections for dam owners concerns transparency and response requirements. The Department is permitted to make many highly discretionary decisions because it is comprised of expert policymakers. Nevertheless, the regulations should provide more procedural opportunities for dam owners to observe the Department's decision-making processes. Increasing transparency into Department decision-making increases the Department's accountability and will ensure decisions are made using reasoned judgment. Furthermore, transparency reduces conflict between owners and the Department because owners will be able to see how the Department weighs important policy considerations.

19) **Hazard classifications.** A fourth example of the failure of the proposed regulations to create procedural protections for dam owners concerns hazard classifications. The proposed regulations allow an owner to request a review of the hazard classification, but do not require the Department to justify the classification in writing. Dam owners would feel more confident in the classification process if the method by which the Department weighs the relevant factors were clarified.

20) **EIS of draft regulations.** Part 617 of the Environmental Conservation Law requires that an Environmental Impact Statement be prepared on any significant action undertaken by the State government. Adoption of the proposed dam safety regulations by DEC is a significant action which will impact thousands of acres of lakes, wildlife habitats, flood controls and other environmental conditions. We believe that adoption of these regulations first requires the completion of an Environmental Impact Statement to assess the impact of the regulations themselves.

21) **Future regulation changes.** Are dam safety requirements going to change down the road? Many landowners have expressed concerns about not just these proposed changes, but also about unknown future changes in requirements as well. For example, the five dams in Chemung County that were constructed by the NRCS were done to the standards expected at that time. Now it seems that the criteria may change and alterations will need to occur on these dams. Landowners are skeptical of what could be a moving target of standards that are acceptable today, but may not be unacceptable in 2058.

22) **Engineering inspections.** Draft §673.7 requires dam owners to retain an

approved engineer to conduct inspections, but the Department is neither required to comment on nor accept the engineer's recommendations. If the Department has the power to reject the recommendations of the experts for which it requires dam owners to pay, then it should have to show reasoned judgment in declining those recommendations. States like Washington require the Department to provide a list of specific objections and then have procedures to allow an owner or his engineer to demonstrate that his recommendations are suitable.

23) **Action plan.** Draft dam regulation §673.6 (c)(2) requires that within twelve months of classification of a Class B or C structure, the owners must submit an action plan. We believe that this is overly optimistic and not achievable since a breach routing and inundation map would need to be completed. If there is a limited number of engineers (see point on this above), it may be difficult to complete the work in the proposed one-year time schedule. A very efficient way to produce the breach routings is by using LIDAR for the topography. LIDAR often takes several seasons to tabulate leaf-off and snow-off conditions.

24) **Decision authority.** Draft dam regulation §673.6 (d) requires that financial security be obtained for “necessary actions” that could include breaching or removal of the dam. Who will determine these actions? Will it be DEC or a private engineer engaged by the dam owner? There may be differences of opinion on how much of a breach (under emergency conditions) would be required. Then the project would need to be priced.

25) **Permitting Decisions.** The Department should follow the lead of states like Arizona and issue a written statement of objections to accompany any denial of a permit application. As proposed in the draft regulations, there would be no requirement for such a procedure, creating a distinct unfairness to the owners of dams in New York.

26) **Grandfathering.** Should regulations concerning Class C dams be grandfathered when they are being operated and maintained according to original specifications? If not, is any State agency willing to provide funding at 100% for reconstruction of dams to meet the new standards and specifications? Counties are concerned that money will need to be expended on their high hazard dams. They are concerned that the criteria have changed and that their dams may need to have work done on them. Many dams were designed and constructed according to NRCS designs. They are being properly operated and maintained and since they were constructed have not had flows into the auxiliary spillway. Can these structures be grandfathered in?

27) **Financial security.** Concerning proposed §608.6 and 608.7, how will the State address the financial and other interests of dam owners if they conflict with the interests of owners of properties downstream or upstream from dams? For example, riparian or lake rights exist in the land titles of many lakefront properties. However, if the new regulations lead to the requirement that a dam be breached, where does the liability for loss of waterfront property lie? Owners of lake-front property could end

up with no lake. It is likely that many of them across the state will find themselves as the owners of swamp-front property instead of lake-front property. While they have legal and financial interests in the lake, it appears from the regulations that they would have no stake in the decision to breach the dam. This is one example of how the proposed regulations stress safety to the exclusion of any other issues.

28) **Informal discussion.** Since formal proceedings are a drain on scarce Department resources, procedures should be established to allow informal discussion and response where an owner has evidence that the Department has neglected to consider viable alternatives or factors in decision-making processes. Technical reviews such as the one provided by 673.5(d) only require the Department to reconsider technical information such as dam break analysis. Informal discussion would ensure that dam owners could present factors for reconsideration that the Department may have overlooked, such as water quality or a local flood control plan.

29) **Costs and funding.** The proposed regulations impose a financial burden on dam owners that for many, will be impossible to meet. Engineering inspections alone may run thousands of dollars, and dam owners will have to consider many other costs including: legal fees, permitting fees, actual construction costs, drafting of emergency and maintenance documents, and insurance or financial assurance bonds. A large number of states (including MA, VA, WV, WI, CT, AZ, and many others) have established multi-million-dollar permanent funds to offer grants or low interest loans to the owners of private and public dams with serious deficiencies. These States have used various methods to create the funds: permitting fees, general fund, federal money -- even taxes on irrigation. The Department should focus much of its energy on finding financial assistance for dam owners if it wants quick compliance. Many states have also worked to reduce costs for dam owners by streamlining permitting processes (MA), providing in-depth guidelines and templates for drafting documents (AZ), providing free inspections to low hazard dams (RI), or providing free hazard classifications (VA). Arizona's dam document templates are available online at [www.AZwater.gov/dwr](http://www.AZwater.gov/dwr). Another option would be to train Soil and Water Conservation Districts to perform basic tasks for low hazard dam owners such as visual inspections.

30) **Environmental concerns.** The proposed regulations have removed a requirement from the old regulations (673.5(b)(1)) that required the Department to consider the impact of its recommended actions on environmental factors. Although it is understandable that the Department intends to shift its focus to safety, a well-reasoned decision should still include consideration of environmental consequences, especially since the Department of Environmental Conservation is the very agency of the New York State government charged with protecting the environment. Too narrow of a safety focus may have unintended consequences; it may promote quick fixes to dam deficiencies but at the detriment of the overall water system. For example, if the Department is not required to consider environmental impacts, it might compel a dam to be breached despite the fact that it serves a valuable purpose in reducing sediment in the Chesapeake Bay watershed. Removal of a dam or lowering its impoundment level

could effect water quality, wildlife habitat, or flood control.

### **Potential Roles for Soil and Water Conservation Districts**

Considering the statutory powers concerning dams given by the State Legislature to Soil and Water Conservation Districts, and considering the ability of New York's fifty-eight Districts to assist the State Department of Environmental Conservation, several specific roles for Districts are being proposed. Despite the recently expanded staffing of the DEC Dam Safety Unit, it would need further help to complete all the work which adoption of the draft regulations would entail. Following are proposals for potential roles concerning dam safety which could be implemented by the existing Soil and Water Conservation Districts.

31) **New inspector certification.** It is requested that the regulations include the creation of a certification program which would allow Soil and Water Conservation District technicians to evaluate and help classify low hazard dams. This would help relieve the expense to Class A dam owners who need to have their dams evaluated by a licensed engineer, according to the proposed draft regulations. The DEC has estimated that this may cost between \$1300 and \$8000 for each dam, even for the small and lowest hazard dams. This changed language in the regulation could include a component in which a questionable rating could require an engineer's inspection as a safeguard.

32) **Farm pond inspections.** Section 673.1(q) f defines farm pond dams, but does not address how a pond might be classified if it were to be used for mixed-use purposes; for example, a private pond for recreational purposes which also serves as wildlife habitat or as a flood control structure. The section does not indicate who makes this decision. It is proposed that Soil and Water Conservation Districts be included in the regulations to provide initial data gathering and classification activities for mixed-use farm ponds.

33) **Hazard class training.** Will DEC develop hazard class training for any individuals outside of the staff of DEC or private engineers? Could DEC develop a course of instruction that some category of individuals could attend and become certified by DEC to do hazard classifications?

34) **Assessment worksheets.** It is proposed that Soil and Water Conservation Districts develop dam risk assessment forms for the Department. These would be used for the gathering of dam data. Every day Districts use a series of tiered assessment forms in the Agricultural Environmental Management Program (AEM). These dam assessment forms are proposed to be based on the AEM model. It is proposed that these worksheets would have questions that could determine if a dam permit is needed. For example, they would ask how to determine the number of gallons impounded, dike height and the number of houses within a specified area downstream from the dam.

35) **Educational process.** It is requested that Districts be formally included in the final regulations to implement an educational process to inform dam owners of the proposed draft regulations and the final regulations when they are adopted. Soil and Water Conservation Districts could be an inexpensive, existing, statewide vehicle for delivering the educational needs of these new regulations.

36) **Government-owned dam list.** We request a list of all of the 902 dams in New York State which are owned by county and municipal governments, including details of the dams which they own. This will be necessary in order for Soil and Water Conservation Districts to assist these governments to meet the proposed regulations.

### **Strengthening the Regulations**

We believe that, if accepted, all of the above comments on the draft regulations would strengthen them. However, we believe that other concerns not directly included in the draft could further strengthen it. These comments are as follows.

37) **Engineer list.** Is DEC going to create a list of competent and acceptable dam safety engineers? If it does, the list could be like the one the Department of Agriculture & Markets has created with certified consultants for its Comprehensive Nutrient Management Program.

38) **Engineering qualifications.** In the proposed regulations, there is a requirement that engineers have ten years of experience to inspect Class C dams. The regulations should provide a more specific way to determine sufficient experience rather than simply “10 years.” A combination of course work and actual projects completed might be one way. There may not be as many qualified engineers as needed, and the 10 years experience requirement may prevent newer, less experienced engineers from entering this field, even if they are needed.

39) **Engineering availability.** In the proposed regulations, there is a requirement that engineers have ten years of experience to inspect Class C dams. How many engineers actually have ten year of experience with dam engineering in New York? Will it be a problem for Class A, B and C dam owners to find such an engineer? An engineering services availability study needs to be conducted to see if the draft regulations could even be implemented.

40) **Inspection costs.** Before adoption of these regulations, there needs to be a statewide study of the total cost of doing all the engineering inspections which would be required by implementation of these draft regulations.

41) **Economic impact study.** Although it is understandable that the Department desires its new regulations to focus on dam safety, it does so at the expense of ignoring other powerful matters, such as economic ones. Before adoption of these regulations, there needs to be a statewide study of the total cost of doing all the dam repairs and

upgrades which would be required by implementation of these draft regulations. These regulations are likely to require the spending of hundreds of millions of dollars across our State by local governments, corporations and private individuals. With no idea of the scale of the financial impact of adopting these regulations, they can not be discussed meaningfully.

42) **Business and Government Impact.** The Department's document entitled, *Regulatory Flexibility Analysis for Small Businesses and Local Governments* contains only 817 words, not enough detail to be of any help to a small business or local government. This document is totally inadequate. Significant research must be done for this analysis to provide meaningful information in order for the draft regulations to be accepted by the public and to provide feedback to the state legislature.

43) **Major Omission.** For an indication of costs which might result from adoption of the regulations, the *Regulatory Flexibility Analysis for Small Businesses and Local Governments* refers to the *Regulatory Impact Statement for Adoption of Modifications and Amendments to 6 NYCRR Parts 673, 608 and 621 regarding dam safety*. There one finds information about the likely costs for engineering fees and for providing financial security to the Department. However, there is no indication of the likely millions of dollars in repair costs which these regulations might force a dam owner to incur.

Amazingly, the *Regulatory Impact Statement* includes the following sentence: "Dam owner costs for operation, maintenance, repairs and other ordinarily expected activities are considered normal costs associated with owning a dam, and were not considered as a new regulatory requirement generated by the proposed regulations." This statement by the Department ignores the most significant impacts of these entire proposed regulations, namely the costs to rebuild numerous dams to meet them. Prior to these proposed regulations, such costs were not normal. These additional, substantial costs must be considered as "a new regulatory requirement generated by the proposed regulations."

The Department's document entitled, *Regulatory Impact Statement for Adoption of Modifications and Amendments to 6 NYCRR Parts 673, 608 and 621 regarding dam safety* is inadequate. Significant research for this impact statement must be done to provide meaningful information in order for the draft regulations to be accepted by the public and to provide feedback to the state legislature.

44) **Financial security.** What financial security would be required of municipalities that have taxing authority and own dams? As an example, Chemung County now owns and operates 5 class "C" high hazard dams. We request an estimate of what the financial security would be for all counties in New York State, like Chemung County, which own dams.

45) **Tracking owners.** How does the DEC plan on tracking dam owners and keeping the data up to date? For example, will the DEC send a letter every year asking whether the dam ownership has changed?

46) **NRCS assistance.** Draft Dam Regulation §608.6, 3 (b), 3 – should include the opportunity for the use of a USDA Natural Resources Conservation Service (NRCS) employee who has approval authority. At this time, NRCS in New York does not have extra staff time to be involved, but their involvement in this activity should not be precluded for the future.

47) **State exemption.** In the draft regulations, State agencies that own dams are exempt from the regulations. We have been assured that, despite this, there will be compliance under the Environmental Audit Process in ECL-3-0311. Is this true? What compliance process will there be for State-owned dams? For example, in Chemung County there is a State-owned Class B dam which has had flow out of its auxiliary spillway numerous times. Does the State agency that owns a dam need to inform DEC about these events? Will they be exempted from this requirement? If it is exempt, why would it be exempt? How would exemption protect the public and ensure continuation of the benefits created by these dams?