

# Department of Environmental Conservation

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## Oversight of Dam Safety

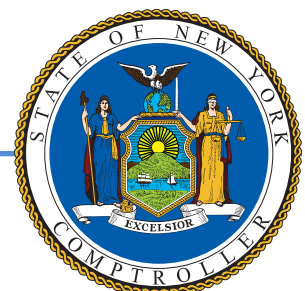
Report 2023-S-16 | February 2025

OFFICE OF THE NEW YORK STATE COMPTROLLER

Thomas P. DiNapoli, State Comptroller

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Division of State Government Accountability



# Audit Highlights

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## Objective

To determine if the Department of Environmental Conservation (DEC) is adequately regulating dam owners across the State to ensure their compliance with safety requirements. This audit covered the period from January 2020 through October 2024.

## About the Program

Hundreds of dam failures have occurred throughout U.S. history, causing immense property and environmental damage and ending thousands of lives. As the nation's dams age and the population increases, the potential for deadly dam failures grows. Dam failures not only pose risks to public safety, but they can also cause millions of dollars in damage and can result in the impairment of many other infrastructure systems, such as roads, bridges, and water systems. Dam failures are most likely to happen due to overtopping (caused by water spilling over the top of a dam), foundation defects, cracking, inadequate maintenance and upkeep, and piping (when seepage through a dam is not properly filtered and soil particles form sink holes in the dam). When a dam fails, resources must be devoted to the prevention and treatment of public health risks as well as the resulting structural consequences. DEC's mission is to conserve, improve, and protect New York's natural resources and environment and to prevent, abate, and control water, land, and air pollution, in order to enhance the health, safety, and welfare of the people of the State and their overall economic and social well-being. To protect people against loss of life and property from flooding and dam failure, DEC is entrusted with the regulatory power over approximately 6,500 dams located throughout the State.

Dams are owned and operated by the State, private parties, or local municipalities, and the State's Environmental Conservation Law requires dam owners to operate and maintain dams in a safe condition at all times. Dam Safety Regulations (Regulations) describe dam owners' and DEC's responsibilities for several areas, such as permitting, construction, maintenance, repairs, inspections, record keeping, and other requirements necessary to safeguard life, property, or natural resources. Most of these requirements apply only to dams or other structures that impound waters and that pose, in the event of failure, a threat of personal injury or substantial property or natural resource damage.

DEC may assign hazard classifications based on factors such as physical structure and location of the dam, potential for loss of life, damage to natural resources, and access to emergency services. Hazard Class B and C dams pose the greatest risks in the event of dam failure; therefore, owners of such dams are required to submit certain documentation to DEC for review, including an Emergency Action Plan (Emergency Plan), Annual Certification, and Engineering Assessment. Emergency Plans are for use in the event of a developing dam failure or other uncontrolled release of stored water. The purpose of an Emergency Plan is to mitigate a developing condition and to provide notifications/warnings and/or evacuations to reduce the threat to downstream lives, property, roads, utilities, and other impacted areas. Annual certifications are an attestation by the dam owner that certain requirements under the Regulations have been met and contain details about the dam, such as the hazard classification, location of the dam and related infrastructure, and implementation of the dam's Inspection and Maintenance Plan. The Engineering Assessment must be performed by a professional engineer and include, among other things, a complete safety inspection, evaluation of the dam, and conclusions as to whether the dam is in a safe condition.

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## Key Findings

While DEC actively conducts inspections of Hazard Class B and C dams in the State and has worked to assign condition ratings in alignment with changes in Regulations, we identified areas where DEC can make improvements regulating dams in the State to help ensure dam owner compliance with Regulations so that they meet safety standards to protect people against loss of life and property from flooding and dam failure. Specific areas include increasing compliance and improving enforcement against those dam owners that fail to submit required documentation to DEC. For example:

- Emergency Plans
  - 158 of 843 (19%) dams, including 153 of 505 Hazard Class B dams and five of 338 (1.5%) Hazard Class C dams, did not have an Emergency Plan on file with DEC.
  - 456 of the 685 (67%) dams that had an Emergency Plan did not have a recent annual update on file—28 (6%) did not have an annual update filed within the past 10 years.
- Engineering Assessments
  - 278 of 843 (33%) dams, including 249 of 505 Hazard Class B dams and 29 of 338 (8.5%) Hazard Class C dams, did not have an Engineering Assessment on file.
  - 86 of the 565 (15%) dams with an Engineering Assessment on file did not have an up-to-date assessment prepared and submitted to DEC within the last 10 years.
- Annual Certifications
  - 115 of 843 (14%) dams, including 110 of 505 (22%) Hazard Class B dams and five of 338 (1.5%) Hazard Class C dams, did not have any Annual Certification on file.
  - 248 of the 728 (34%) dams with at least one Annual Certification on file did not have a recent annual certification—43 (17%) did not have an Annual Certification filed within the last 10 years.

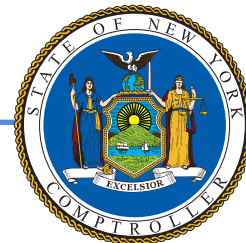
The Regulations require that dam owners prepare and submit Emergency Plans, Engineering Assessments, and Annual Certifications to DEC periodically. These are important tools DEC uses to identify deficiencies and corrective actions and provide DEC with the ability to review dam owner’s emergency response procedures—each of which is necessary to help ensure adequate regulation and safety of dams in the State. However, DEC’s current enforcement procedures do not include steps to act against owners that do not comply with these regulatory requirements.

Although DEC implemented a process to assign condition ratings to Hazard Class B and C dams (indicating the condition of a dam based on structural safety), as of March 2024, 220 of the 843 (26%) dams have not been assigned a rating. Although assigning condition ratings is not a prerequisite to enforcement, it better enables DEC’s efforts to implement enforcement actions because certain condition ratings require the dam owner to act. For example, a condition rating of unsafe requires immediate action to lower or drain the reservoir to reduce or eliminate the potential for a dam failure. Lastly, DEC could improve the timeliness of inspections and establish time frames for the completion of inspection reports to ensure that inspection results are communicated timely.

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## Key Recommendation

- Improve regulation of dam owners in New York State, which may include but not be limited to:
  - Completing and implementing enforcement procedures for dam owners that fail to operate and maintain a dam in a safe condition and fail to submit required documents to DEC as necessary.
  - Assigning condition ratings to Hazard Class B and C dams and updating DEC's database accordingly.
  - Increasing the number of timely inspections in alignment with DEC's goals for Hazard Class B and C dams.
  - Establishing time frames for the completion of inspection reports.



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## Office of the New York State Comptroller Division of State Government Accountability

February 21, 2025

Sean Mahar  
Interim Commissioner  
Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233

Dear Interim Commissioner Mahar:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides accountability for the tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Oversight of Dam Safety*. This audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

*Division of State Government Accountability*

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# Glossary of Terms

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Term	Description	Identifier
DEC	Department of Environmental Conservation	<i>Auditee</i>
Emergency Plan	Emergency Action Plan	<i>Key Term</i>
Law	Environmental Conservation Law	<i>Law</i>
Regulations	Dam Safety Regulations	<i>Regulation</i>

# Background

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Hundreds of dam failures have occurred throughout U.S. history, causing immense property and environmental damage and ending thousands of lives. As the nation's dams age and the population increases, the potential for deadly dam failures grows. Dam failures not only pose risks to public safety, but they can also cause millions of dollars in damage and can result in the impairment of many other infrastructure systems, such as roads, bridges, and water systems. Dam failures are most likely to happen due to overtopping (caused by water spilling over the top of a dam), foundation defects, cracking, inadequate maintenance and upkeep, and piping (when seepage through a dam is not properly filtered and soil particles form sink holes in the dam). When a dam fails, resources must be devoted to the prevention and treatment of public health risks as well as the resulting structural consequences.

The Department of Environmental Conservation's (DEC) mission is to conserve, improve, and protect New York's natural resources and environment and to prevent, abate, and control water, land, and air pollution, in order to enhance the health, safety, and welfare of the people of the State and their overall economic and social well-being. To help protect people against loss of life and property from flooding and dam failure, DEC is entrusted with the regulatory power over dams. Under the Environmental Conservation Law (Law), DEC is authorized to design a program to monitor dam safety. Dams are owned and operated by the State, private parties, or local municipalities, and the Law requires dam owners to operate and maintain dams in a safe condition at all times. Dam Safety Regulations (Regulations) describe dam owners' and DEC's responsibilities for several areas, such as permitting, periodic engineering assessments, construction, maintenance, repairs, inspections, record keeping, and other requirements necessary to help safeguard life, property, or natural resources. DEC has also developed procedures for inspecting dams. Most of these requirements apply only to dams or other structures that impound (confine or enclose) waters and that pose, in the event of failure, a threat of personal injury or substantial property or natural resource damage.



*Faiz Zakiy Yamani/iStock/Getty Images Plus (1400947214)*

DEC may assign a hazard classification to a dam that indicates the level of damage possible if the dam was to fail. Hazard classifications are assigned based on factors such as physical structure and location of the dam, potential for loss of life, damage to natural resources, and access to emergency services. A dam can be assigned one of four classes:

- Class A (low hazard) – Failure would result in only isolated damage and is unlikely to result in the loss of life or disruption to important utilities.
- Class B (intermediate hazard) – Failure would result in damage to a small number of homes or minor roads, may potentially disrupt important utilities, and is likely to pose the threat of personal injury.



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- Class C (high hazard) – Failure may result in widespread or serious damage to homes, main highways, and important utilities, and the loss of human life or widespread substantial economic loss is likely.
  - Class D (negligible or no hazard) – Dam has been breached or removed.

DEC uploads information from an internal electronic database used to track information related to each dam—such as location, owner information, and hazard classification—to produce a public-facing [dam inventory map](#)<sup>1</sup> that includes details of each dam. As of March 2024, DEC regulated 6,484 dams: 4,332 Hazard Class A, 505 Hazard Class B, 338 Hazard Class C, and 1,309 Hazard Class D.

Hazard Class B and C dams pose the greatest risks in the event of dam failure. Based on available data obtained from DEC, the average age of Hazard Class B and C dams is approximately 91 years, with the oldest dam being built in 1792. Therefore, the Regulations require owners of Hazard Class B and C dams to create an Inspection and Maintenance Plan that must be available for review upon request from DEC. Owners of Hazard Class B and C dams are also required to prepare and submit an Emergency Action Plan (Emergency Plan) to DEC with annual updates.

Emergency Plans are for use in the event of a developing dam failure or other uncontrolled release of stored water. The purpose of an Emergency Plan is to mitigate a developing condition and to provide notifications/warnings and/or evacuations to reduce the threat to downstream lives, property, roads, utilities, and other impacted areas. The Emergency Plan should include information such as emergency notification procedures, inundation maps, and procedures for implementing and updating the Emergency Plan. Further, Hazard Class B and C dam owners are required to annually certify the name and address of owner(s), hazard class and location, and their retention of an Inspection and Maintenance Plan and Emergency Plan. Annual Certifications are an attestation by the dam owner that certain requirements under the Regulations have been met, and contain details about the dam, such as the hazard classification, location of the dam and related infrastructure, and implementation of the Inspection and Maintenance Plan. Both the Emergency Plan and certification are due annually on January 31.

The Regulations also require regular (as identified in the Inspection and Maintenance Plan) safety inspections be performed by an engineer on behalf of the owner of Hazard Class B and C dams. DEC may request a copy of the resulting report at any time, and dam owners must send DEC an Engineering Assessment at least once every 10 years. The Engineering Assessment must be performed by a professional engineer and include:

- A complete safety inspection
- An evaluation of the dam, including its function, structural stability, and spillway capacity<sup>2</sup> (which may utilize calculations or computer modeling of the hydrologic, hydraulic, stability, and/or structural analysis)

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1 In the inventory map, scroll down and select Dams under the “Permits and Regulations” tab.

2 Amount of water a spillway (passage for surplus water) can pass through it.

- Conclusions as to whether the dam is in a safe condition, along with the basis for the conclusions
- Any recommended change in the hazard classification or modification of the Emergency Plan due to changes in the dam or inundation area, including, specifically, changes in land use

Additionally, DEC may perform a field inspection of any dam within its oversight and may create field inspection reports based on the inspections. DEC has set a goal to inspect Hazard Class C dams every 2 years, Hazard Class B dams every 4 years, and other dams on an as-needed basis. For Hazard Class B and C dams, within 30 days of completing a field inspection report, DEC is required to provide a copy to the dam owner and the chief executive officer of the municipality or municipalities in which the dam is located.

In 2009, DEC amended its Regulations, adopting rules governing DEC’s discretion to assign condition ratings to any dam within its oversight. In February 2015, DEC implemented a Dam Safety Program to gradually integrate the assignment of condition ratings into DEC’s normal cycle of dam inspection, review, and follow-up. Ratings were usually assigned according to program priorities (e.g., deficient, high-hazard dams received the highest priority). DEC developed procedures to assign ratings to provide a general sense of the condition of dams in the State to the public or press in response to inquiries and to better enable DEC to implement enforcement in accordance with revisions to the Regulations. DEC developed six condition ratings, as well as subcategories that better relate to the National Inventory of Dams’ Condition Assessment system (see table below).

#### Condition Ratings

DEC Condition Rating	Sub-Rating	Definition
Unsafe		Failure of the dam is imminent, and immediate action is required to eliminate or reduce the danger.
Unsound	Deficiency Recognized	Deficiencies of such a nature exist that the safety of the dam cannot be assured.
Unsound	More Analysis Needed	
Unsound	Fair	
Deficiently Maintained		Physical or operational deficiencies exist but do not require further significant engineering analysis. Some corrective action is required, often in the form of increased maintenance, to correct the condition of the dam.
No Deficiencies Noted		A safety inspection, Engineering Assessment, and/or investigation by DEC did not reveal deficiencies.

The owner of a dam that is assigned a condition rating of unsafe, unsound, or deficiently maintained should be notified by DEC in writing, by certified mail, of the rating and the basis for that determination. The notices include the hazard classification assigned as well as such corrective action as DEC deems appropriate, including the timely correction of deficiencies, with due consideration of the potential impacts associated with the corrective action. DEC may pursue formal enforcement proceedings to compel the implementation of an enhanced safety program and/or the prompt correction of all deficiencies.

# Audit Findings and Recommendations

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While DEC actively conducts inspections of Hazard Class B and C dams in the State and has worked to assign condition ratings in alignment with the change in Regulations, we identified areas where DEC can make improvements regulating dams in the State to ensure dam owner compliance with Regulations so that they meet safety standards to protect people against loss of life and property from flooding and dam failure. Specific areas include ensuring compliance and improving enforcement against those dam owners that fail to submit required documentation to DEC. Also, although DEC implemented a process to assign condition ratings to Hazard Class B and C dams, as of March 2024, 220 of the 843 (26%) dams have not been assigned a rating. Although assigning condition ratings is not a prerequisite to enforcement, it better enables DEC's efforts to implement enforcement actions because certain condition ratings require the dam owner to act. For example, a condition rating of unsafe requires immediate action to lower or drain the reservoir to reduce or eliminate the potential for a dam failure. Lastly, DEC could improve the timeliness of inspections and establish time frames for the completion of inspection reports to ensure that inspections results are communicated timely.

## Emergency Plans, Engineering Assessments, and Annual Certifications

Emergency Plans, Engineering Assessments, and Annual Certifications are important tools DEC uses to identify deficiencies and corrective actions and provide DEC with the ability to review dam owner's emergency response procedures—each of which is necessary to ensure adequate regulation and safety of dams in the State. Furthermore, annually required updates to the Emergency Plan are necessary to ensure these plans are useful by accurately reflecting current site conditions and that the roles of various participants are understood and agreed upon. However, we found a significant number of dam owners did not submit all the required documentation to DEC. As of March 2024, we found:



*kuppa\_rock/iStock/Getty Images Plus (1187536408)*

- Emergency Plans
  - 158 of 843 (19%) dams, including 153 of 505 Hazard Class B dams and five of 338 (1.5%) Hazard Class C dams, did not have an Emergency Plan on file with DEC.
  - 456 of the 685 (67%) dams that had an Emergency Plan did not have a recent annual update on file—28 (6%) did not have an annual update filed within the past 10 years.
- Engineering Assessments
  - 278 of 843 (33%) dams, including 249 of 505 Hazard Class B dams and 29 of 338 (8.5%) Hazard Class C dams, did not have an Engineering Assessment on file.

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- 86 of the 565 (15%) dams with an Engineering Assessment on file did not have an up-to-date assessment prepared and submitted to DEC within the last 10 years.
  - Annual Certifications
    - 115 of 843 (14%) dams, including 110 of 505 (22%) Hazard Class B dams and five of 338 (1.5%) Hazard Class C dams, did not have any Annual Certification on file.
    - 248 of the 728 (34%) dams with at least one Annual Certification on file did not have a recent annual certification—43 (17%) did not have an Annual Certification filed within the last 10 years.

DEC officials stated that they have been focusing their efforts on bringing Hazard Class C dams into compliance with documentation requirements and that they have been successful. DEC officials also stated that 99% of Hazard Class C dam owners are in compliance with the Emergency Plan and Annual Certification requirements and 92% are in compliance with the Engineering Assessment requirement. However, while the dam owners have submitted Emergency Plans and Engineering Assessments, our findings show that they are not all up to date and might not reflect current conditions. Also, DEC's current enforcement procedures do not include steps to act against owners that do not comply with regulatory requirements. DEC officials are drafting procedures that incorporate detailed enforcement actions. We recommend DEC complete and implement these procedures to bring dam owners in compliance with the Regulations.

## Condition Ratings

Condition ratings indicate the condition of a dam based on structural safety. These ratings are based on a number of factors, including the presence of any dam safety deficiencies and the likelihood of a dam failing. Assigning a rating allows DEC to better assess the condition of dams, leading to more informed decision-making regarding enforcement actions based on the assessed risk. While DEC has assigned condition ratings to most Hazard Class B and C dams, 220 of 843 had not been rated as of March 2024, including 188 of 505 Hazard Class B dams and 32 of 338 Hazard Class C dams. Of the 623 Hazard Class B and C dams that have been assigned a condition rating as of March 2024, 483 (78%) are rated as unsound or deficiently maintained.

DEC officials stated that, on or about 2015, they began assigning condition ratings to Hazard Class C dams and have rated over 90% of them. DEC officials also noted that, in 2022, emphasis was placed on assigning condition ratings to Hazard Class B dams and because they are inspected every 4 years (vs. every 2 years for Hazard Class C dams), it takes longer to assign their condition ratings. However, since the process to assign condition ratings began in 2015, each Hazard Class B dam should have been inspected at least twice since then and could have been assigned a rating.

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DEC officials also emphasized they are not required to assign a condition rating to dams, and the absence of a rating does not affect DEC's ability to bring enforcement actions against a dam owner. However, as previously stated, one reason DEC began to assign condition ratings was to better enable implementation of enforcement in accordance with revisions to the Regulations. For example, a condition rating of unsafe requires immediate action to lower or drain the reservoir to reduce or eliminate the potential for a dam failure. DEC officials stated that, in practice, when they identify deficiencies at a dam, they request that the dam owner develop a plan to implement necessary remedial measures. If a dam owner does not address the deficiencies, and if conditions warrant, DEC will then recommend formal enforcement action to compel the remedial work. DEC officials also stated they balance enforcement priorities and activities based on public safety and other considerations. During our audit scope, DEC did not initiate, close, or have any pending enforcement actions.

We also reviewed random samples of 50 Hazard Class B and 50 Hazard Class C dams, and determined that 57 dam owners should have been notified of the hazard classification assigned to the dam and of the corrective action DEC deemed appropriate, including the timely correction of deficiencies, with due consideration of the potential impacts associated with the corrective action. DEC appropriately notified all 57 dam owners.

## Inspection Goals

Although not a requirement of the Regulations, DEC has set a goal to inspect Hazard Class C dams every 2 years, Hazard Class B dams every 4 years, and other dams on an as-needed basis. Field inspections allow DEC to visually assess the current condition of dams to determine whether there are any observable deficiencies that need to be addressed. Issues noted via visual observations may include items such as overgrown vegetation and evidence of burrowing animals, both of which can prevent a dam from meeting safety criteria. Findings are documented in the inspector's report along with recommendations to address identified deficiencies. Other items included in the inspection reports include a review of the dam's Emergency Plan and current condition rating as well as photos of the dam's structure and identified deficiencies.

We found that, as of March 2024, DEC predominately met its goals and was up to date on inspections of Hazard Class B dams every 4 years and Hazard Class C dams every 2 years. DEC did not meet inspection goals for 21 of the 843 (2.5%) Hazard Class B and C dams. This includes 17 of 505 (3%) Hazard Class B dams and four of 338 (1%) Hazard Class C dams. As of March 2024, these dam safety inspections were overdue, ranging from 65 to 430 days.



*pornpimon Ainkaew/iStock/Getty Images Plus (1458143483)*

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We also selected random samples of 50 Hazard Class B and 50 Hazard Class C dams and found 12% of inspections of Hazard Class B and C dams were not completed within established goals:

- 12% of inspections of Hazard Class B dams were not completed within 4 years, ranging from 105 to 642 days late.
- 12% of inspections of Hazard Class C dams were not completed within 2 years, ranging from 133 to 655 days late.

DEC officials stated some inspections were not completed timely due to dam owner cooperation with the inspections, staffing issues, and scheduling priorities.

Although inspection time frames are not established in the Regulations, if DEC conducts a field inspection, the Regulations require DEC to send an inspection report to the dam owner and the chief executive officer of the municipality or municipalities in which the dam is located within 30 calendar days of completing the inspection report. While the Regulations define a time frame for sending completed inspection reports, they are silent on a time frame for inspectors to complete the reports. Furthermore, DEC has not established a time frame for inspectors to complete inspection reports through its policies and procedures. We reviewed a sample of 50 dams (27 Hazard Class C and 23 Hazard Class B) to determine the length of time it took for inspectors to complete reports. To perform this test, we took the difference between the inspection date and the inspection report date. We found that, on average, inspection reports took 42 days and ranged from 6 to 150 days to complete.

Timely inspections of dams and communication of those results to the owners better ensure structural concerns are communicated and corrected to support the structural integrity of the dam. We recommend DEC work to improve inspection timeliness as practicable and establish time frames for the completion of inspection reports.

## Recommendation

1. Improve regulation of dam owners in New York State, which may include but not be limited to:
  - Completing and implementing enforcement procedures for dam owners that fail to operate and maintain a dam in a safe condition and fail to submit required documents to DEC as necessary.
  - Assigning condition ratings to Hazard Class B and C dams and updating DEC's database accordingly.
  - Increasing the number of timely inspections in alignment with DEC's goals for Hazard Class B and C dams.
  - Establishing time frames for the completion of inspection reports.

# Audit Scope, Objective, and Methodology

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The objective of our audit was to determine if DEC is adequately regulating dam owners across the State to ensure their compliance with safety requirements. This audit covered the period from January 2020 through October 2024.

To accomplish our objective and assess related internal controls, we reviewed State laws, regulations, and DEC policies; interviewed DEC officials; and examined DEC dam records.

We used a non-statistical sampling approach to provide conclusions on our audit objective and to test internal controls and compliance. We selected both judgmental and random samples. However, because we used a non-statistical sampling approach for our tests, we cannot project the results to the respective populations, even for the samples. Our samples, which are discussed in detail in the body of our report, include:

- A judgmental sample of 50 (of 843) Hazard Class B (506) and C (337) dams<sup>3</sup> to review files and hard copy documentation maintained by DEC. Our judgment was based on potential risks assessed by the audit team, such as the number of dams in a region, the population in the municipality where the dam was located, and the maximum storage capacity.
- A judgmental sample of five (of 358) dams based on confidential factors.
- A random sample of 50 (of 505) Hazard Class B and a random sample of 50 (of 338) Hazard Class C dams<sup>3</sup> to assess timeliness of inspections and if notifications of condition ratings were sent to dam owners.

We obtained data from DEC's electronic database that is used to track information related to each dam, including location, owner information, date of last inspection, hazard classification, Annual Certifications, and Emergency Plan and Engineering Assessment submissions. We assessed the reliability of that data by tracing to and from source data. We determined that the data from this system was sufficiently reliable for the purposes of this report. Certain other data in our report was used to provide background information. Data that we used for this purpose was obtained from the best available sources, which were identified in the report. Generally accepted government auditing standards do not require us to complete a data reliability assessment for data used for this purpose.

We analyzed the data contained in the database to determine DEC oversight of dam owners. We used the data to determine if Emergency Plans, Engineering Assessments, and Annual Certifications were submitted as required; the timeliness of inspections; and if dam condition ratings had been assessed.

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<sup>3</sup> The number of Hazard Class B and C dams differs slightly between the samples because we obtained an updated data set after the original sample of 50 was pulled and tested.

# Statutory Requirements

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## Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. These duties could be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our professional judgment, these duties do not affect our ability to conduct this independent performance audit of DEC's regulation of dam owners.

## Reporting Requirements

We provided a draft copy of this report to DEC officials for their review and formal written comments. We considered their response in preparing this final report and have included it in its entirety at the end of the report. DEC officials generally agreed with the recommendation and have indicated actions they will take to address it. Certain information was shared with DEC officials but not included in this report due to the confidential nature of that information.

Within 180 days after final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Department of Environmental Conservation shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendation contained herein, and where the recommendation was not implemented, the reasons why.



# Agency Comments

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**Department of  
Environmental  
Conservation**

**KATHY HOCHUL**  
Governor

**SEAN MAHAR**  
Interim Commissioner

JAN 30 2025

Heather Pratt  
Office of the State Comptroller  
Division of State Government Accountability  
110 State Street – 11th Floor  
Albany, New York 12236-0001

Dear Heather Pratt:

The New York State Department of Environmental Conservation (DEC) has reviewed the Office of the State Comptroller's Draft Audit Report *Oversight of Dam Safety*.

DEC's comments with respect to this report are contained in the enclosed document. Please contact Andrew Fischler, Director of Internal Audit, at (518) 402-9761 if you have any questions regarding our response.

Sincerely,



Sean Mahar  
Interim Commissioner

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**Office of the Commissioner**  
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**Department of Environmental Conservation**  
**Oversight of Dam Safety**  
**2023-S-16**  
**Response to OSC Draft Report**

The New York State Department of Environmental Conservation (DEC) has reviewed the Office of the State Comptroller's (OSC) December 2024 draft audit report on DEC's oversight of dam safety in New York State and appreciates the opportunity to respond.

DEC has successfully provided dam owners in New York State with construction, operation, and maintenance guidance and oversight for more than 40 years. DEC's Dam Safety Section (Section), within the Bureau of Flood Protection and Dam Safety, is responsible for implementation of regulatory requirements to help ensure dams within the state are operated and maintained safely by their owners. Section staff in DEC's central office and western hub perform dam inspections, including reviews of proposed dam construction and modifications; monitor remedial work for compliance with dam safety criteria; assess emergency preparedness aimed at minimizing damages resulting from a dam failure; and conduct reviews of permits and technical submissions.

OSC's audit analyzed performance metrics that included years prior to and following 2020. As with many of DEC's programs during this time, several routine dam safety workplan items, which included dam inspections, were greatly curtailed due to COVID restrictions and changes in Section staffing. To better assist in meeting the Section's program goals, DEC is in the process of backfilling vacant positions.

DEC generally agrees with OSC's findings and will take appropriate action to implement recommendations cited in the report. The following is our response to the report's findings and recommendations.

**Findings**

- All Class B and C dam owners did not submit Emergency Action Plans, Engineering Assessments, and Annual Certifications, as required, to DEC. While dam owners have submitted Emergency Plans and Engineering Assessments, they are not all up-to-date and might not reflect current conditions.

***DEC Response:***

- More than 99% of Class C dam owners have submitted an Annual Certification and Emergency Action Plan, and 92% submitted an Engineering Assessment. Additionally, 78% of Class B dam owners have submitted Annual Certifications, and 72% submitted an Emergency Action Plan. Section staff include a table within each dam safety inspection report, identifying whether the dam owner has submitted an up-to-date Emergency Action Plan, Engineering Assessment, and Annual Certification. The inclusion of the table helps to compel dam owners to comply with documentation submission requirements. Ensuring compliance with annual certification, emergency action plan, and engineering assessment requirements are, and will continue to be, a high priority for the Section.

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- Section staff routinely correspond with dam owners through routine inspections, which include verification of Emergency Plan and Engineering Assessment submissions. Dam owner compliance with submission requirements is influenced by inspection frequency, as Section staff perform inspections of Class C dams at twice the rate of Class B dams. Moving forward, DEC expects more timely submissions, as Section staffing levels increase and correspondence with dam owners becomes more frequent through the inspection program.
  - DEC's current enforcement procedures do not include steps to act against owners that do not comply with regulatory requirements.

***DEC Response:***

- DEC has and continues to take enforcement action against dam owners that do not operate and maintain their dam in a safe manner; however, noncompliance procedures for certain regulatory requirements (e.g., Engineering Assessments, Emergency Plans, and Annual Certifications) are not included in Section guidance. As a result, DEC is developing enforcement procedures to guide Section staff in addressing noncompliant dam owners.
- While DEC has assigned condition ratings to most Class B and C dams, 220 had not been rated as of March 2024.

***DEC Response:***

- DEC began assigning condition ratings in 2015. At that time, Class C (high hazard) dams were prioritized because federal grant eligibility for high hazard dams was based on assignment of a condition rating. In recent years, Section staff began prioritizing the assignment of condition ratings to both Class B (intermediate hazard) and C dams and DEC anticipates assigning condition ratings to a majority that are currently unrated during the next few years' inspection cycle.
- DEC did not meet inspection goals for 21 of the 843 Class B and C dams and has not established a timeframe for inspectors to complete inspection reports through its policies and procedures.

***DEC Response:***

- As stated in the report, DEC is not required to inspect dams but has a self-imposed goal of inspecting Class B and C dams every four and two years, respectively. DEC has met its inspection goals for 97.5% of those dams; many that were missed resulted from inspection inactivity due to COVID-era restrictions and staffing changes. Section staff remain focused on meeting inspection goals and aim to complete inspections within timeframes applicable to each dam class.

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**Recommendation**

1. Improve regulation of dams in New York State, which may include but not be limited to:
  - Completing and implementing enforcement procedures for dam owners that fail to operate and maintain a dam in a safe condition and fail to submit required documents to DEC as necessary;
  - Assigning condition ratings to Class B and C dams and updating DEC's database accordingly;
  - Increasing the number of timely inspections in alignment with DEC's goals for Hazard Class B and C dams; and
  - Establishing timeframes for the completion of inspection reports.

***DEC Response:***

- DEC is developing enforcement guidance and working to assign condition ratings to Class B and C dams that are currently unrated.
- DEC has completed inspections for most Class B and C dams and anticipates meeting its inspection goals in 2025.
- DEC is updating its inspection procedures to include timeframes for completing inspection reports after performing a visual inspection.

# Contributors to Report

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