

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts amendments to §§299.1, 299.2, and 299.7.

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts amendments to §§299.1, 299.2, and 299.7, *without changes* to the proposed text as published in the April 15, 2022, issue of the *Texas Register* (47 TexReg 1970) and, therefore, will not be republished.

### **Background and Summary of the Factual Basis for the Adopted Rules**

The purpose of this rulemaking adoption is to amend existing rules to add the language of Senate Bill (SB) 600, 87th Texas Legislature (2021), Author: Perry, requiring river authorities to submit information on their dams. There are eight river authorities that meet the requirements of SB 600, and there are 79 dams owned by these river authorities.

Language requiring dam exemptions from House Bill (HB) 2694, 82nd Texas Legislature (2011), Author: Smith, and HB 677, 83rd Texas Legislature (2013), Author: Geren, has been added. The recent audit report findings on the Dam Safety Program by Texas State Auditor's Office, issued July 2020, recommended that the language of these two bills be included in the rules.

Revisions were made to clarify language in the rules.

## **Section by Section Discussion**

### *Subchapter A: General Provisions*

The commission adopts amended §299.1 (Applicability) by clarifying language to better define a dam. There has been confusion on what constitutes a dam.

The commission adopts the figure located in §299.1(a)(2) to clarify the applicability of the rules to a dam.

The commission adopts §299.1(c)(6) to include language from HB 677 for exemption of dams if the dam meets all five of the criteria listed in the adopted rule: (1) is located on private property; (2) at maximum capacity impounds less than 500 acre-feet; (3) has a hazard classification of low or significant; (4) is located in a county with a population of less than 350,000; and (5) is not located inside the corporate limits of a municipality.

The commission adopts revised language for the definitions of main highways (§299.2(33)), minor highways (§299.2(38)), and secondary highways (§299.2(59)) to better define each for use in hazard classifications.

The commission adopts the revised definition of “removal” in §299.2(54) to clarify and be consistent with the definition in the *Dam Removal Guidelines for Dams in Texas*.

The commission adopts the revised language for the Inventory of Dams in §299.7 to better define what is in the inventory and to remove language for items that are not included.

The commission adopts §299.7(b)(1) and (2), after reformatting, and the addition of “a” to §299.7, to include language from SB 600 that each river authority, designated in Section 325.025(b), Government Code, shall provide to the executive director information regarding the operation and maintenance of dams under the control of that river authority. The following information is to be provided for each dam: 1) location of the dam; 2) under whose jurisdiction the dam operates; 3) required maintenance schedule for the dam; 4) costs of the operation and maintenance of the dam; and 5) method of finance for operations and maintenance costs of the dam.

The commission adopts §299.7(b)(3) to require the river authorities to submit the information annually.

The commission adopts §299.7(b)(4) to require the TCEQ to create and maintain an internet website to contain the information, subject to federal and state confidentiality laws.

### **Final Regulatory Impact Determination**

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225 and determined that the rulemaking is not subject to Texas Government Code, §2001.0225. Texas Government Code, §2001.0225, applies to a “Major environmental rule” which is defined in Texas Government Code, §2001.0225(g)(3), as a rule with a specific intent “to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.”

First, the adopted rulemaking does not meet the statutory definition of a “Major environmental rule” because its specific intent is not to protect the environment or reduce risks to human health from environmental exposure. The purpose of this rulemaking is to amend existing rules to add the language of Senate Bill (SB) 600, Perry, 87th Texas Legislature (2021), requiring river authorities to submit information on their dams. There are eight river authorities that meet the requirements of SB 600, and there are 79 dams owned by these river authorities.

Second, the adopted rulemaking does not meet the statutory definition of a “Major environmental rule” because the adopted rules will not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the

environment, or the public health and safety of the state or a sector of the state. It is not anticipated that the cost of complying with the adopted rules will be significant with respect to the economy as a whole or with respect to a sector of the economy; therefore, the adopted amendments will not adversely affect in a material way the economy, a sector of the economy, competition, or jobs.

Finally, the adopted rulemaking does not meet any of the four applicability requirements for a “Major environmental rule” listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, only applies to a major environmental rule, the result of which is to: “1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law. This adopted rulemaking does not meet any of the four preceding applicability requirements because this rulemaking: 1) does not exceed any standard set by federal law for the regulation of dams ; 2) does not exceed any express requirements of state law related to the regulation of dams; 3) does not exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; and 4) is not adopted solely under the general powers of the agency. Since this

adopted rulemaking does not meet the statutory definition of a “Major environmental rule” nor does it meet any of the four applicability requirements for a “Major environmental rule,” this rulemaking is not subject to Texas Government Code, §2001.0225.

The commission invited public comment regarding the Draft Regulatory Impact Analysis Determination during the public comment period. No comments were received regarding the regulatory impact analysis determination.

### **Takings Impact Assessment**

The commission evaluated this rulemaking and performed an analysis of whether the adopted rules will constitute a taking. Texas Government Code, §2007.002(5), defines a taking as either: 1) a governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or Sections 17 or 19, Article I, Texas Constitution; or 2) a governmental action that affects an owner's private real property that is the subject of the governmental action, in whole or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and is the producing cause of a reduction of at least 25% in the market value of the affected private real property, determined by comparing the market value of the

property as if the governmental action is not in effect and the market value of the property determined as if the governmental action is in effect. The commission determined that these adopted rules will not constitute a taking as that term is defined under Texas Government Code, §2007.002(5). Specifically, the adopted rules will not affect any landowner's rights in private real property, and there are no burdens that will be imposed on private real property by the adopted rules; the adopted rules are solely procedural and do not impact real property.

#### **Consistency with the Coastal Management Program**

The commission reviewed the adopted rules and found that they are neither identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2) or (4), nor will they affect any action/authorization identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(a)(6). Therefore, the adopted rules are not subject to the Texas Coastal Management Program (CMP).

The commission invited public comment regarding the consistency with the CMP during the public comment period. No comments were received regarding the CMP.

#### **Public Comment**

The commission offered a public hearing on May 17, 2022. The comment period closed on May 17, 2022. The commission received no comments.

## **SUBCHAPTER A: GENERAL PROVISIONS**

### **§§299.1, 299.2, and 299.7**

#### **Statutory Authority**

These amendments are adopted under the authority granted to the commission in Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to conservation of natural resources and protection of the environment; §5.013, which establishes the commission's authority over various statutory programs, such as dam safety; §5.103 and §5.105, which establish the commission's general authority to adopt rules; §12.052, which establishes the commission's authority to promulgate rules for the safe construction, maintenance, repair, and removal of dams located in this state; and §12.053 which establishes rules regarding the inventory of dams operated by river authorities.

These adopted amendments implement Senate Bill 600, 87th Texas Legislature (2021), Author: Perry; House Bill (HB) 2694, 82nd Texas Legislature (2011), Author: Smith; and HB 677, 83rd Texas Legislature (2013), Author: Geren.

#### **§299.1. Applicability.**

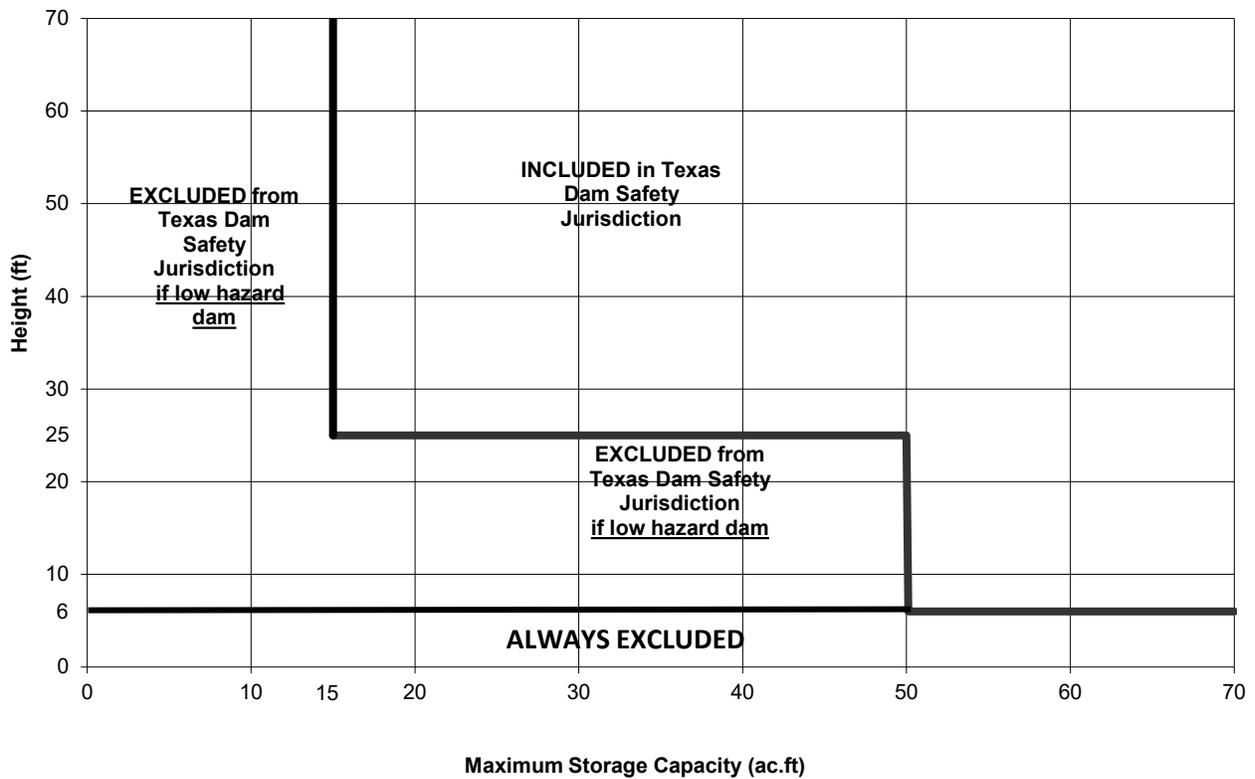
(a) This chapter applies to design, review, and approval of construction plans and specifications; and construction, operation and maintenance, inspection, repair, removal, emergency management, site security, and enforcement of dams that:

(1) have a height greater than or equal to 25 feet and a maximum storage capacity greater than or equal to 15 acre-feet, as described in paragraph (2) of this subsection;

(2) have a height greater than six feet and a maximum storage capacity greater than or equal to 50 acre-feet;

**Figure: 30 TAC §299.1(a)(2)**

Figure 1. Minimum Dam Heights



(3) are a high- or significant-hazard dam as defined in §299.14 of this title (relating to Hazard Classification Criteria), if over 6 feet high, regardless of maximum storage capacity; or

(4) are used as a pumped storage or terminal storage facility.

(b) This chapter provides the requirements for dams, but does not relieve the owner from meeting the requirements in Texas Water Code (TWC), Chapter 11, and Chapters 213, 295, and 297 of this title (relating to Edwards Aquifer; Water Rights, Procedural; and Water Rights, Substantive; respectively). All applicable requirements in those chapters will still apply.

(c) This chapter does not apply to:

(1) dams designed by, constructed under the supervision of, and owned and maintained by federal agencies such as the Corps of Engineers, International Boundary and Water Commission, and the Bureau of Reclamation;

(2) embankments constructed for roads, highways, and railroads, including low-water crossings, that may temporarily impound floodwater, unless designed to also function as a detention dam;

(3) dikes or levees designed to prevent inundation by floodwater;

(4) off-channel impoundments authorized by the commission under TWC, Chapter 26;

(5) above-ground water storage tanks (steel, concrete, or plastic); and

(6) exempt dams authorized under TWC, Chapter 12. A dam is exempt from this chapter if it meets all of the following:

(A) is located on private property;

(B) has a maximum capacity of less than 500 acre-feet, the capacity at the top of the dam as defined in 30 TAC §299.2(36);

(C) has a hazard classification of low or significant as defined in 30 TAC §299.14;

(D) is located in a county with a population of less than 350,000 based on the most current U. S. Census numbers; and

(E) is not located inside the corporate limits of a municipality, as based on the most current municipal information.

(d) All dams must meet the requirements in this chapter, including dams that do not require a water right permit, other dams that are exempt from the requirements in Subchapter C of this chapter (relating to Construction Requirements), and dams that are granted an exception as defined in §299.5 of this title (relating to Exception).

**§299.2. Definitions.**

The following words and terms in this section are in addition to the definitions in §3.2 of this title (relating to Definitions). The words and terms in this section, when used in this chapter, have the following meanings.

(1) Abandon--The owner no longer maintaining a dam for a period of ten years, or refusing to maintain the dam.

(2) Accepted engineering practices--The application of design and analysis methods that are commonly used by professional engineers in their field of expertise and are well documented in published design manuals, codes of practice, text books, and engineering journals.

(3) Alteration--Any change to a dam or appurtenant structures that affects the integrity, safety, and operation of the dam, including, but not limited to:

(A) changing the height of a dam;

(B) increasing the normal pool or principal spillway elevation, or changing the hydraulic capability of the principal spillway; or

(C) changing the original elevation, physical dimensions, or hydraulic capability of an emergency spillway.

(4) Appurtenant structures--The outlet works and controls, spillways and controls, gates, valves, siphons, access structures, bridges, berms, drains, hydroelectric facilities, instrumentation, and other structures related to the operation of a dam.

(5) Breach--An excavation or opening, either controlled or a result of a failure of the dam, through a dam or spillway that is capable of completely draining the reservoir down to the approximate original topography so the dam will no longer impound water, or partially draining the reservoir to lower impounding capacity.

(6) Breach analysis--The analysis of potential dam failure scenarios, including overtopping and piping (magnitude, duration, and location), using accepted engineering practices, to evaluate downstream hazard potential or to develop inundation maps.

(7) Breach inundation area--An area that would be flooded as a result of a dam failure.

(8) Closure of dam--The commencement of placing material within the closure section of the dam.

(9) Closure section--The section of the dam left open during construction of a proposed dam in order to pass floodwaters through the dam without endangering the dam.

(10) Commence construction--An actual, visible activity beyond planning or land acquisition that initiates the beginning of the construction of a dam in the manner specified in the approved construction plans and specifications for that dam. The action must be performed in good faith with the intent to continue with the construction through completion.

(11) Conceptual design--A design that presents a location and proposed plan of the dam and appurtenant structures and elevations of all pertinent features of the dam.

(12) Construction--Building a proposed dam and appurtenant structures capable of storing water.

(13) Construction change order--A document recommended by the owner's professional engineer and signed by the owner's contractor and the owner that

authorizes a significant addition, deletion, or revision of the approved construction plans and specifications that has a material impact on the safety and integrity of the dam.

(14) Dam--Any barrier or barriers, with any appurtenant structures, constructed for the purpose of either permanently or temporarily impounding water.

(15) Dam failure--breach and uncontrolled release of the reservoir.

(16) Deficient dam--A dam that fails to meet the requirements of this chapter and poses a significant threat to human life or property.

(17) Deliberate impoundment--The intentional impoundment of water in the reservoir, including:

(A) closing the lowest planned outlet or spillway;

(B) blocking the diversion works that are used during construction to divert water around the construction area; and

(C) beginning the closure of the dam.

(18) Design flood--The flood used in the design and evaluation of a dam and appurtenant structures, particularly for determining the size of spillways, outlet works, and the effective crest of the dam.

(19) Detention dam--A dam that has an impoundment that is normally dry and has an ungated outlet structure that is designed to completely drain the water impounded during a flood within five days.

(20) Drawdown--The change in surface elevation of a reservoir due to a withdrawal of water from the reservoir.

(21) Effective crest of the dam--The elevation of the lowest point on the crest (top) of the dam, excluding spillways.

(22) Emergency action plan--A written document prepared by the owner or the owner's professional engineer describing a detailed plan to prevent or lessen the effects of a failure of the dam or appurtenant structures.

(23) Emergency repairs--Any repairs, considered to be temporary in nature, necessary to preserve the integrity of the dam and prevent a possible failure of the dam.

(24) Emergency spillway--An auxiliary spillway designed to pass a large, but infrequent, volume of flood flow, with a crest elevation higher than the principal spillway or normal operating level.

(25) Engineering inspection--Inspection performed by a professional engineer, or under the supervision of a professional engineer, to evaluate the condition, safety, and integrity of the dam and appurtenant structures to determine if the dam and appurtenant structures meet applicable rules and accepted engineering practices, including a field inspection and review of records for design, construction, and performance.

(26) Enlargement--Any change in, or addition to, an existing dam or reservoir that raises, or may raise, the normal storage capacity of the reservoir impounded by the dam.

(27) Existing dam--Any dam under construction or completed as of the effective date of these rules.

(28) Fetch--The straight-line distance across a reservoir subject to wind forces.

(29) Hazard classification--A measure of the potential for loss of life, property damage, or economic impact in the area downstream of the dam in the event of a failure or malfunction of the dam or appurtenant structures. The hazard classification does not represent the physical condition of the dam.

(30) Height of dam--The difference in elevation between the natural bed of the watercourse or the lowest point on the downstream toe of the dam, whichever is lower, and the effective crest of the dam.

(31) Inundation map--A map delineating the area that would be flooded by a particular flood event, or a dam failure.

(32) Loss of life--Human fatalities that would result from a failure of the dam, without considering the mitigation of loss of life that could occur with evacuation or other emergency actions.

(33) Main highways--Roads classified as an arterial system by the Texas Department of Transportation, including interstate highways, United States highways, and state highways, listed as either interstate or principal or minor arterial.

(34) Maintenance--Those tasks that are generally recurring and are necessary to keep the dam and appurtenant structures in a sound condition, free from

defect or damage that could hinder the dam's functions as designed, including adjacent areas that also could affect the function and operation of the dam.

(35) Maintenance inspection--Visual inspection of the dam and appurtenant structures by the owner or owner's representative to detect apparent signs of deterioration, other deficiencies, or any other areas of concern.

(36) Maximum storage capacity--The volume, in acre-feet, of the impoundment created by the dam at the effective crest of the dam. For purposes of calculating maximum storage capacity for the Inventory of Dams as described in §299.7 of this title (relating to Inventory of Dams), only water that can be stored above natural ground level (not in excavations in the reservoir) or that could be released by a failure of the dam is considered in assessing the storage volume. The maximum storage capacity may decrease over time due to sedimentation or increase if the reservoir is dredged.

(37) Minimum freeboard--The difference in elevation between the effective crest of the dam and the maximum water surface elevation resulting from routing the design flood appropriate for the dam.

(38) Minor highways--Roads not classified as a main or secondary highway as defined in this subsection, including county roads and Farm-to-Market roads not used to provide service to schools.

(39) Modification--Any structural alteration of a dam, the spillways, the outlet works, or other appurtenant structures that could influence or affect the integrity, safety, and operation of the dam.

(40) Normal storage capacity--The volume, in acre-feet, of the impoundment created by the dam at the lowest uncontrolled spillway crest elevation, or at the maximum elevation of the reservoir at the normal (non-flooding) operating level.

(41) NAD83 conus datum--The North American Datum of 1983 is a reference system used to obtain the spherical coordinates of a point on the earth's surface. The standard North American Datum of 1983, or any future updates, must be used for all latitude and longitude measurements.

(42) NAVD88 datum--The North American Vertical Datum of 1988 is a reference system used to obtain vertical measurements on the earth's surface. The North American Vertical Datum of 1988 must be used for all vertical measurements recorded with a global positioning system receiver.

(43) Outlet--A conduit or pipe controlled by a gate or valve, or a siphon, that is used to release impounded water from the reservoir.

(44) Owner--Any person who can be one or more of the following:

(A) holds legal possession or ownership of an interest in a dam;

(B) is the fee simple owner of the surface estate of the tract of land on which the dam is located if actual ownership of the dam is uncertain, unknown, or in dispute unless the person can demonstrate by appropriate documentation, including a deed reservation, invoice, bill of sale, or by other legally acceptable means that the dam is owned by another person or persons;

(C) is a sponsoring local organization that has an agreement with the Natural Resources Conservation Service for a dam constructed under the authorization of the Flood Control Act of 1944 (as amended), Public Law 78-534, the Watershed Protection and Flood Prevention Act, 1954 (as amended), Public Law 83-566, the pilot watershed program under the Flood Prevention of the Department of Agriculture Appropriation Act of 1954, Public Law 156-67, or Subtitle H of Title XV of the Agriculture and Flood Act of 1981, the Resource Conservation and Development Program; or

(D) has a lease, easement, or right-of-way to construct, operate, or maintain a dam.

(45) Piping--The progressive removal of soil particles from a dam by percolating water, leading to development of channels or flow paths.

(46) Principal spillway--Also commonly referred to as the service spillway, the primary or initial spillway engaged during a rainfall runoff event that is designed to pass normal flows.

(47) Probable maximum flood (PMF)--The flood magnitude that may be expected from the most critical combination of meteorologic and hydrologic conditions that are reasonably possible for a given watershed.

(48) Probable maximum precipitation (PMP)--The theoretically greatest depth of precipitation for a given duration that is physically possible over a given size storm area at a particular geographical location at a certain time of the year.

(49) Professional engineer--An individual licensed by the Texas Board of Professional Engineers to engage in the practice of engineering in the state of Texas,

with experience in the investigation, design, construction, repair, and maintenance of dams.

(50) Proposed dam--Any dam not yet under construction.

(51) Pumped storage dam--A rectangular or circular embankment used to store water pumped from another source.

(52) Reconstruction--Removal and replacement of an existing dam or appurtenant structures.

(53) Rehabilitation--The completion of all work necessary to extend the service life of a dam and meet the safety and performance standards of this chapter.

(54) Removal--The complete elimination of a dam, the appurtenant structures, and the reservoir to its natural channel by removing enough of the dam to the extent that no water can be either permanently impounded, nor temporarily detained, by the dam (no significant differential between the upstream and downstream water surface elevations) during normal conditions, as well as during the design flood of the dam.

(55) Repairs--Any work done on a dam that may affect the integrity, safety, and operation of the dam, including, but not limited to:

(A) excavation into the embankment fill or foundation of a dam; or

(B) removal or replacement of major structural components of a dam or appurtenant structures.

(56) Reservoir--A body of water impounded by a dam.

(57) Safe manner--Operating and maintaining a dam in sound condition, free from defect or damage that could hinder the dam's functions as designed.

(58) Seal--To affix a professional engineer's seal to each sheet of construction plans or to an engineering report or required document.

(59) Secondary highways--Roads classified as a major or minor collector road by the Texas Department of Transportation, including Farm-to-Market roads used to provide service to schools.

(60) Secure location--A building that is locked and accessible to the owner and owner's representative.

(61) Spillway--An appurtenant structure that conducts outflow from a reservoir.

(62) Sponsoring local organization--any political subdivision of the state, or other entity, with the authority to carry out, maintain, or operate work of improvement installed with the assistance of the federal government.

(63) Stability analysis--The analytical procedure for determining the most critical factor of safety for a slope.

(64) Substantially complete--A dam under construction that is complete except for minor correction of items identified in the final construction inspection and that can be operated in a safe manner to the dam's full functional capability.

**§299.7. Inventory of Dams.**

(a) The executive director shall maintain an inventory of dams that includes information on:

(1) ownership;

(2) physical dimensions of the dam;

(3) hazard classification;

(4) normal and maximum storage capacity;

(5) hydraulic data;

(6) inspection date;

(7) location;

(8) condition of the dam;

(9) emergency action plan status; and

(10) design dates.

(b) Inventory of dams operated by river authorities.

(1) This section applies only to a river authority described by Section 325.025(b), Government Code.

(2) Each river authority shall provide to the executive director information regarding the operation and maintenance of dams under the control of that river authority. The following information is to be provided for each dam:

(A) the location of the dam;

(B) under whose jurisdiction the dam operates;

(C) a required maintenance schedule for the dam;

(D) costs of the operation and maintenance of the dam; and

(E) the method of finance for the operation and maintenance costs of the dam.

(3) A river authority shall submit the information required by paragraph (2) of this subsection to the executive director each year and in the event of a significant change in the information.

(4) Subject to federal and state confidentiality laws, the executive director shall create and maintain an Internet website that contains the information collected under this section.