

# National Inventory of Dams Data Dictionary August 2022



**DESCRIPTION*****Dam Name***

The official name of the dam. No abbreviations unless the abbreviation is a part of the official name. For dams that do not have an official name, the popular name is used.

***Other Names***

Names other than the official name (i.e., reservoir name) of the dam in common use. Multiple names are separated by a semi-colon. Blank if not applicable.

***Former Names***

Previous reservoir or dam name(s), if changed. Multiple names are separated by a semi-colon.

***NID ID***

The official NID identification number for the dam, known formerly as the National ID. This is a required field, and must have an entry for each dam included in the NID. The State Dam Safety Offices assign and maintain the NID IDs for all dams, regardless of ownership. The first two characters of the identity are the two-letter state abbreviation, based on the location of the dam. The last five to six characters of the identity are a unique number (AB#####); although States are allowed to use alphanumeric combinations in the characters that follow the state abbreviation.

***Other Structure ID***

The identification number (S001, S002, etc.) of a separate structure, such as a saddle dam or dike, associated with the dam project. This field applies only to saddle dams, dikes or other separate structures associated with a primary dam. This field is blank for all other dams.

***Federal ID***

The unique identifier for each dam record. For saddle dams, dikes or other separate structures associated with the dam project, it is a concatenation of the primary dam's NID ID and the Other Structure ID. For all other dams, it is the NID ID.

***Owner Names***

Name(s) of the dam owner. If multiple owners, different owners are separated by a semi-colon.

***Owner Types***

Category describing the dam owner(s).

Federal  
Local Government  
Private  
Public Utility  
State  
Tribe  
Not Listed

Local Government should have taxing authority or is supported by taxes. If more than one owner type, types are separated by a semi-colon. Examples listed below. If the dam is owned by a lake association and a public utility, the owner type would be listed as *Private;Public Utility*. For multiple owners with the same type, one category is used (i.e, if multiple individuals own one dam, it will list Private).

***Primary Owner Type***

Category describing the owner type. If more than one owner type, the main owner type is used.

***Number of Associated Structures***

Number of separate structures associated with this dam project. Includes saddle dams (or dikes) as defined in FEMA 148: Federal Guidelines for Dam Safety, Glossary of Terms, as a subsidiary dam of any type constructed across a saddle or low point on the perimeter of a reservoir. Not included is the number of appurtenant works which are defined as, but not limited to, such structures as spillways, either in the dam or separate there from; the reservoir and its rim; low level outlet works; and water conduits such as tunnels, pipelines or penstocks, either through the dam or its abutments.

***Designer Names***

Name of the principal firm(s) or agency accomplishing design of dam and major appurtenant operating features, and major modifications. Original designer is listed first, then modification designers (if applicable). The names are separated using a semi-colon. If an Architect-Engineer Firm designed the dam under a state or federal government contract, the state or federal agency name is listed first; then the company name second separated by a semi-colon.

***Non-Federal Dam on Federal Property***

Indicating whether this dam is a non-federal dam located on federal property.

***Primary Purpose***

Category describing the main purpose for which the reservoir is used. If more than one purpose, the most important is used.

***Purposes***

Category describing the current purpose(s) for which the reservoir is used.

Debris Control  
Fire Protection, Stock, Or Small Farm Pond  
Fish and Wildlife Pond  
Flood Risk Reduction  
Grade Stabilization  
Hydroelectric  
Irrigation  
Navigation  
Recreation  
Tailings  
Water Supply  
Other

If more than one purpose, purposes are separated by a semi-colon.

***Source Agency***

Calculated Field: Primary state or federal agency responsible for providing and updating the NID data.

***State or Federal Agency ID***

The State or Agency identification number for the dam (if applicable).

***Latitude***

Latitude at dam centerline as a single value in decimal degrees, NAD83.

***Longitude***

Longitude at dam centerline as a single value in decimal degrees, NAD83.

**State**

State where dam is located.

**County**

The name of the county in which the dam is located.

**Nearest Downstream City/Town**

Name of the nearest downstream city, town, or village that is most likely to be affected by floods resulting from the failure of the dam.

**Distance to Nearest City/Town**

Distance from the dam to the nearest affected downstream city/town/village (listed in the Nearest Downstream City/Town), to the nearest mile (and tenth if appropriate).

**River or Stream**

The River or Stream designation may be entered in one of two ways. For the convenience of some organizations, an alternative field entry is provided which is consistent with the “tributary and offstream” designations used in the 1995-96 NID. If the alternative form is used, the NID Data Team will convert it to the standard form prior to inclusion in the national inventory.

River or Stream Standard Entry: The official name of the river or stream on which the dam is built. If the stream is unnamed, identify it as a tributary to a named river, e.g., *Snake-TR*. If the dam is located offstream, enter the name of the river or stream plus “-OS”, e.g., *Snake-OS*.

River or Stream Alternative Entry: The official name of the river or stream on which the dam is built. If the stream is unnamed, identify it as a tributary to a named river, e.g., *TR-Snake*. If the dam is located offstream, enter the name of the river or stream plus the word, “OFFSTREAM,” e.g., *Snake OFFSTREAM*.

**Congressional Representative District**

Calculated Field: Congressional District where dam is located. Congressional District is generated based on provided coordinates. If no coordinates are provided, then this field will be left blank.

**Section, Township, Range Location**

Optional field. The information is in any form that is understandable and that clearly designates the individual values, i.e. *S21, 73N, R69W*. If the prime meridian location is needed to locate the dam within the state, include it in the field, i.e. *S21, T3N, R68W of 6PM (Sixth Prime Meridian)*.

**State Regulated Dam**

Calculated field: based on State Permitting Authority, State Inspection Authority and State Enforcement Authority. If Yes to all three authority criteria, then dam is state regulated and will be listed as Yes.

**State Jurisdictional Dam**

Listed as Yes if this dam meets the state regulatory organization’s definition of a jurisdictional dam. For example, in New Mexico a jurisdictional dam is defined as a dam that exceeds 10 feet in height regardless of storage or a dam that stores more than 10 acre-feet regardless of height. Therefore, in New Mexico, all dams that meet that state criteria will have Yes listed in this field.

**State Regulatory Agency**

Name of the primary state agency with regulatory or approval authority over the dam.

**State Permitting Authority**

Listed as Yes if the state regulatory organization has the authority to review and approve plans and specifications to construct, enlarge, remove, and abandon dams (from the National Dam Safety Program Act of

2014).

***State Inspection Authority***

Listed as Yes if the state regulatory organization has the authority to require or perform the inspection, at least once every five years, of all dams and reservoirs that would pose a significant threat to human life and property in case of failure to determine the continued safety of the dams and reservoirs (from the National Dam Safety Program Act of 2014) .

***State Enforcement Authority***

Listed as Yes if the state regulatory organization has the authority to issue notices, when applicable, to require owners of dams to perform necessary maintenance or remedial work, revise operating procedures, or take other actions, including breaching dams when necessary (from the National Dam Safety Program Act of 2014).

***Federal Agency Owner***

Federal agency that owns the dam (or a component of the dam). If multiple agencies are involved in owning the dam, agencies are separated by semi-colon.

***Federal Agency Involvement in Funding***

Federal agency that was involved in funding of the dam. If multiple agencies were/are involved with the funding, agencies are separated by semi-colon.

***Federal Agency Involvement in Design***

Federal agency that was involved in the design of the dam. If multiple agencies were/are involved with the design, agencies are separated by semi-colon.

***Federal Agency Involvement in Construction***

Federal agency that was involved in the construction of the dam. If multiple agencies were/are involved with the construction, agencies are separated by semi-colon.

***Federal Agency Involvement in Regulatory***

Federal agency that is involved in the regulation of the dam. If multiple agencies are involved in regulating the dam, agencies are separated by semi-colon.

***Federal Agency Involvement in Inspection***

Federal agency that is involved in the inspection of the dam. If multiple agencies are involved in inspecting the dam, agencies are separated by semi-colon.

***Federal Agency Involvement in Operation***

Federal agency that is involved in the operation of the dam. If multiple agencies are involved in operating the dam, agencies are separated by semi-colon.

***Federal Agency Involvement – Other***

Federal agency that was/is involved in other aspects of the dam. If multiple agencies are involved in other aspects, agencies are separated by semi-colon.

**STRUCTURE**

***Primary Dam Type***

Category describing the main type of dam. If more than one type, the most dominant is used.

***Dam Type***

Category describing the type of dam.

Arch  
Buttress  
Concrete  
Earth  
Gravity  
Masonry  
Multi-Arch  
Rockfill  
Roller-Compacted Concrete  
Stone  
Timber Crib  
Other

If more than one type, types are separated by a semi-colon. For example, *Concrete;Buttress* would indicate the dam is a buttress dam made of concrete. If listed as *Earth;Concrete*, the dam has both earthen and concrete components.

### ***Core***

Indicates the position, type of watertight member and certainty.

Position:

Upstream Facing  
Homogeneous dam  
Core  
Unlisted/Unknown

Type:

Bituminous Concrete  
Concrete  
Earth  
Metal  
Plastic  
Unlisted/Unknown

Certainty:

Known  
Estimated

### ***Foundation***

The material upon which dam is founded, and certainty:

Foundation:

Rock  
Rock and Soil  
Soil  
Unlisted/Unknown

Certainty:

Known  
Estimated

### ***Dam Height***

Height of the dam, in feet to the nearest foot, which is defined as the vertical distance between the lowest point



on the crest of the dam and the lowest point in the original streambed.

***Hydraulic Height***

Hydraulic height of the dam, in feet to the nearest foot, which is defined as the vertical difference between the maximum design water level and the lowest point in the original streambed.

***Structural Height***

Structural height of the dam, in feet to the nearest foot, which is defined as the vertical distance from the lowest point of the excavated foundation to the top of the dam. Top of dam refers to the parapet wall and not the crest.

***NID Height***

Calculated field: Maximum value of dam height, structural height, and hydraulic height. Accepted as the general height of the dam.

***NID Height Category***

Calculated field: Based on the NID Height, grouped into categories: less than 25 feet, 25-49 feet, 50-100 feet, and greater than 100 feet.

***Dam Length***

Length of the dam, in feet, which is defined as the length along the top of the dam. This also includes the spillway, powerplant, navigation lock, fish pass, etc., where these form part of the length of the dam. If detached from the dam, these structures should not be included.

***Volume (of Dam)***

Total number of cubic yards occupied by the materials used in the dam structure. Portions of powerhouse, locks, and spillways are included only if they are an integral part of the dam and required for structural stability.

***Year Completed***

Year (four digits) when the original main dam structure was completed. If unknown, and reasonable estimate is unavailable, the value will be blank.

***Year Completed Category***

Calculated field: Based on the Year Completed Date, grouped into categories: before 1900, 1900-1909, 1910-1919, 1920-1929, 1930-1939, 1940-1949, 1950-1959, 1960-1969, 1970-1979, 1980-1989, 1990-1999, Since 2000, and Undetermined.

***Year Modified***

Year (four digits) when major modifications or rehabilitation of dam or major control structures were completed. Major modifications are defined as a structural, foundation, or mechanical construction activity which significantly restores the project to original condition; changes the project's operation; capacity or structural characteristics (e.g. spillway or seismic modification); or increases the longevity, stability, or safety of the dam and appurtenant structures.

Category describing the type of modification.

Foundation  
Hydraulic  
Mechanical  
Seismic  
Structural  
Other

***NID Storage***

Calculated field: Maximum value of normal storage and maximum storage. Accepted as the general storage of the dam.

***Maximum Storage***

Maximum storage, in acre-feet, which is defined as the total storage space in a reservoir below the maximum attainable water surface elevation, including any surcharge storage.

***Normal Storage***

Normal storage, in acre-feet, which is defined as the total storage space in a reservoir below the normal retention level, including dead and inactive storage and excluding any flood control or surcharge storage. For normally dry dams, the normal storage will be a zero value. If unknown, the value will be blank and not zero.

***Surface Area***

Surface area, in acres, of the impoundment at its normal retention level.

***Drainage Area***

Drainage area of the dam, in square miles, which is defined as the area that drains to a particular point (in this case, the dam) on a river or stream.

***Maximum Discharge***

Number of cubic feet per second which the spillway is capable of discharging when the reservoir is at its maximum designed water surface elevation.

***Spillway Type***

Category describing the type of spillway.

Controlled

Uncontrolled

None

***Spillway Width***

The width of the spillway, to the nearest foot, available for discharge when the reservoir is at its maximum designed water surface elevation. Typically for an open channel spillway, this is the bottom width. For pipe spillways or drop inlets that have diameters, use the diameter of the pipe.

***Number of Locks***

Number of existing navigation locks for the project.

***Length of Locks***

Length of the primary navigation lock to the nearest foot.

***Lock Width***

Width of the primary navigation lock to the nearest foot.

***Outlet Gates***

Category describing the type of (1) spillway and (2) controlled outlet gates, if any:

None

Uncontrolled

Tainter (radial)

Vertical Lift

Roller



Bascule  
Drum  
Needle  
Flap  
Slide (sluice gate)  
Valve  
Other controlled

Allowed up to five types in decreasing size order, separated by semicolons, followed by number of gates.

## **INSPECTION AND EVALUATION**

### ***Data Last Updated***

Calculated Field: Date data was submitted to the US Army Corps of Engineers for inclusion to the NID or date the regulatory agency updated the online NID database.

### ***Inspection Date***

Date of the most recent periodic or comprehensive inspection of the dam prior to the NID data transmittal by the submitting agency.

### ***Inspection Frequency***

The scheduled frequency interval for periodic or comprehensive inspections, in years.

### ***Hazard Potential Classification***

Category to indicate the potential hazard to the downstream area resulting from failure or mis-operation of the dam or facilities. It reflects probable loss of human life and impacts on economic, environmental, and lifeline interests. The hazard potential does not speak to the condition of the dam or the risk of the dam failing.

Low  
Significant  
High  
Undetermined  
Not Available

Definitions, as accepted by the Interagency Committee on Dam Safety, are as follows:

#### ***Low Hazard Potential***

Dams assigned the low hazard potential classification are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

#### ***Significant Hazard Potential***

Dams assigned the significant hazard potential classification are those dams where failure or mis-operation results in no probable loss of human life but can cause economic loss, environment damage, disruption of lifeline facilities, or impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be in areas with population and significant infrastructure.

#### ***High Hazard Potential***

Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

Hazard Potential Classification	Loss of Human Life	Economic, Environmental, Lifeline Losses
Low	None expected	Low and generally limited to owner
Significant	None expected	Yes
High	Probable. One or more expected	Yes (but not necessary for this classification)

*Undetermined Hazard Potential*

Dams for which a downstream hazard potential has not been designated or is not provided.

*Not Available*

Dams for which the downstream hazard potential is restricted to approved government users.

**Condition Assessment**

Assessment that best describes the condition of the dam based on available information.

Satisfactory

Fair

Poor

Unsatisfactory

Not Rated

Not Available

A dam safety deficiency is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Normal operations are defined as loading on the dam resulting from day-to-day pool operations to achieve authorized purposes in accordance with minimum state or federal regulatory criteria.

*Satisfactory*

No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.

Typical Circumstances:

- No existing deficiencies or potentially unsafe conditions are recognized, with the exception of minor operational and maintenance items that require attention.
- Safe performance is expected under all loading conditions including the design earthquake and design flood.
- Permanent risk reduction measures (reservoir restrictions, spillway modifications, operating procedures, etc) have been implemented to eliminate identified deficiencies.

*Fair*

No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state or federal criteria.

Other Circumstances:

- Lack of maintenance requires attention to prevent developing safety concerns.
- Maintenance conditions may exist that require remedial action greater than routine work and/or

secondary studies or investigations.

- Interim or permanent risk reduction measures may be under consideration.

#### *Poor*

A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.

Other Circumstances:

- Dam has multiple deficiencies or a significant deficiency that requires remedial work.
- Lack of maintenance (erosion, sinkholes, settlement, cracking, unwanted vegetation, animal burrows, inoperable outlet gates) has affected the integrity or the operation of the dam under normal operational conditions and requires remedial action to resolve.
- Critical design information is needed to evaluate the potential performance of the dam. For example, a field observation or a review of the dam's performance history has identified a question that can only be answered by review of the design and construction history for the dam. Uncertainty arises when there is no design and/or construction documentation available for review and additional analysis is needed to better understand the risk associated with operation under normal operational conditions.
- Interim or permanent risk reduction measures may be under consideration.

#### *Unsatisfactory*

A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.

Typical Circumstances:

- A critical component of the dam has deteriorated to unacceptable condition or failed.
- A safety inspection indicates major structural distress (excessive uncontrolled seepage, cracks, slides, sinkholes, severe deterioration, etc.), advanced deterioration, or operational deficiencies which could lead to failure of the dam or its appurtenant structures under normal operating conditions.
- Reservoir restrictions or other interim risk reduction measures are required.
- A partial or complete reservoir drawdown may be mandated by the state or federal regulatory agency.

#### *Not Rated*

The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but, for whatever reason, has not been rated.

#### *Not Available*

Dams for which the condition assessment was not provided to the NID.

#### ***Condition Assessment Date***

Date of the most recent assessment of the dam prior to the NID data transmittal by the submitting agency.

### **RESPONSE PREPAREDNESS**

#### ***Emergency Action Plan (EAP Prepared)***

Indicating whether this dam has an Emergency Action Plan (EAP) developed by the dam owner. An EAP is defined as a plan of action to be taken to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood.

Yes

No

Not Required (by regulatory agency)

If an EAP is required (or not required) and has one, it will be listed as Yes. If an EAP is required and does not have one, it will be listed as No. If there is not an EAP and one is not required, it will be listed as Not Required.

***Date of Last Revision of Emergency Action Plan (EAP Last Revision Date)***

Date of the most recent revision of the Emergency Action Plan (including update and verification of the contact lists) prior to the NID data transmittal by the submitting agency.

***Last EAP Exercise Date***

Date of the most recent exercise of the Emergency Action Plan with the dam owner and local stakeholders. An EAP exercise is a coordinated practice by local/state/federal emergency responders to discuss roles and response during an emergency, usually in a classroom setting and guided by a facilitator.  
(For USACE dams only)

***Emergency Contacts Updated***

Date the EAP Emergency Contacts Lists (within the Notification Flowchart) was last updated by the dam owner. (For USACE dams only)

***EAP Meets FEMA Guidelines***

Indicating whether this dam's Emergency Action Plan (EAP) meets the requirements of the Federal Guidelines for Dam Safety, Emergency Action Planning for Dams, FEMA 64. (For USACE dams only)

**HELPFUL RESOURCES (SUMMARY)**

***Website URL***

Web Site for more information on specific dam or regulatory agency.