

Layer Name: Regulated Dams in Hawaii as of November 2023

File Name: dams_nid

Layer Type: point

Status: Complete

Geog. Extent: Islands of Hawaii, Kauai, Maui, Molokai and Oahu

Projection: UTM Zone 4, Meters, NAD 83 HARN

Please note - if you download data from the State's geoportal (<https://geoportal.hawaii.gov/>), the data is exported in WGS84 coordinates, although it is stored internally (in the State's geodatabase), served in the State's web services (<https://geodata.hawaii.gov/arcgis/rest/services>) and made available in the State's legacy download site (<https://planning.hawaii.gov/gis/download-gis-data-expanded/>) in UTM / NAD 83 coordinates.

Source: State Department of Land and Natural Resources, Engineering Division

History: Provided to Statewide GIS Program by DLNR Engineering Division, 11/27/23. This data is transmitted to the National Inventory of Dams (NID - <https://nid.sec.usace.army.mil/#/>) as a continuous update of regulated dams in Hawaii. For the most current information, please visit the NID website, referenced above.

For attribute definitions, please see

http://files.hawaii.gov/dbedt/op/gis/data/NID_Hawaii_DataDictionary_20231127.pdf

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Hawaii National Inventory of Dams Data Dictionary - 11/27/23

NID field Name	Labels	Definition
NID ID	National Dam 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. This field is used as the unique identifier for each dam record. The first two characters of the identity are the state two-letter abbreviation, based on the location of the dam. Typically, the last five characters of the identity are a unique number (AB#####); although States are allowed to use alphanumeric combinations in these last five characters. For saddle dams or dikes, the NID ID is the same as the main dam. See saddle dam definition in Number Separate Structures Field.
State or Federal Agency ID	State Dam ID	The Official State identification number for the dam.
Other Structure ID	Other Structure ID	The identification number (S001, S002, etc.) for the saddle dam or dike associated with the larger dam project. This field only applies to saddle dams or dikes. This field is blank for all other dams.
Record ID	NID Record ID	The data record ID used by the NID (for data submittals)
Dam Name	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 Dam Names	Other Name(s)	Names other than the official name (i.e., reservoir name) of the dam in common use. Names are separated using a semi-colon. Blank if not applicable.
Dam Former Name	Former Name	Previous reservoir or dam name(s), if changed. Names are separated using a semi-colon.
Longitude	Longitude (dec)	Longitude at dam centerline as a single value in decimal degrees, NAD83.
Latitude	Latitude (dec)	Latitude at dam centerline as a single value in decimal degrees, NAD83.
County	County	The name of the county in which the dam is located.
State	State	State where dam is located.
Nearest Downstream City/Town	Nearest Town/City	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 to Nearest Town	Distance from the dam to the nearest affected downstream city/town/village (listed in the previous field), to the nearest mile (and tenth if appropriate).
Owner Name	Owner(s)	Name(s) of the dam owner. If multiple owners, different owners are separated by a semicolon.
Owner Type	Owner Type	Code to indicate the type of owner: F for Federal; S for State; L for Local Government (defined as have taxing authority or is supported by taxes); U for Public Utility; P for Private X for Not Listed. Codes are concatenated if the dam is owned by more than one type. For example, if the dam is owned by a lake association and a public utility, the owner type would be listed as PU. For multiple owners under the same type, one code is used. For example, if multiple individuals own one dam, it will list P for private dam ownership. Some examples of owner types. Local Government should have taxing authority or is supported by taxes. A Lake District is supported by taxes and considered Local Government. A lake association is supported by association dues and would not be a Local Government owner type but rather Private owner type.
Url Address	Site URL address	Web Site for more information on particular dam. This is the link that will take the public to the correct dam on dams.hawaii.gov
Congressional Representative District	Voting District	Congressional District where dam is located. 1st Congressional District is Urban Honolulu, and 2nd Congressional district is the rest of Oahu and all other islands. Note that this field is recalculated by NID based on coordinates of Dam.
Congressional Representative	District Representative	Name of congressional representative for the congressional district where dam is located. This information autofills based on District Name, and is editable in the admin tools only.

Congressional Representative Party	District Party	Name of political party associated with the congressional representative for the congressional district where dam is located. This information autofills based on District Name, and is editable in the admin tools only.
Number Separate Structures	Num of Separate Structures	Number of separate structures associated with this dam project. Include 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 in the number of appurtenant works which include, but are 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 (FEMA Model State Dam Safety Program Glossary of Terms).
Purposes	Dam Purpose	Indicate the current purpose(s) for which the reservoir is used. Letters are stored in the dataset to indicate use. I for Irrigation; H for Hydroelectric; C for Flood Control and Storm Water Management; N for Navigation; S for Water Supply; R for Recreation; P for Fire Protection, Stock, Or Small Farm Pond; F for Fish and Wildlife Pond; D for Debris Control; T for Tailings; G for Grade Stabilization; O for Other. The order should indicate the relative decreasing importance of the purpose. Codes are concatenated if the dam has multiple current purposes. For example, SCR would indicate the primary purposes, Water Supply, followed by Flood Control and Storm Water Management, and then Recreation.
Dam Designer	Dam Designer	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.
Year Completed	Year Completed	Year (four digits) when the original main dam structure was completed. If unknown, and reasonable estimate is unavailable, "0000" is used.
Year Modified	Year Last 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. Entries should be followed by one of more of the following codes indicating type of modification: S for structural; F for foundation; M for mechanical; E for seismic; H for hydraulic; O for other. Up to ten modifications can be entered, separated by semicolons.

Downstream Hazard Potential	Hazard Classification	<p>The potential hazard to the downstream area resulting from failure or misoperation of the dam or facilities: Low; Significant; High; or Undetermined. Definitions, as accepted by the Interagency Committee on Dam Safety, are as follows: 1. LOW HAZARD POTENTIAL Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property. 2. 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 located in areas with population and significant infrastructure. 3. HIGH HAZARD POTENTIAL Dams assigned the high hazard potential classification are those where failure or misoperation 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) 4. UNDETERMINED HAZARD POTENTIAL Dams for which a downstream hazard potential, as defined in 1-3 above, has not been designated or is not provided. Note that dams with a code "U" will be considered for NID inclusion the same as a dam with low hazard potential. If included in the NID, the undetermined classification will be used in publication.</p>
Hazard Code		Code to indicate the potential hazard to the downstream area resulting from failure or misoperation of the dam or facilities: L for Low; S for Significant; H for High U for Undetermined. See Hazard for Definitions.
Date of Hazard Analysis	Hazard Assessment Date	Date the Hazard Analysis was last completed.
Condition Assessment	Condition	<p>Assessment that best describes the condition of the dam based on available information. Satisfactory; Fair; Poor; Unsatisfactory; Not Rated. 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. Condition Assessment definitions, as accepted by the National Dam Safety Review Board, are as follows:</p> <p>1. 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.</p> <p>2. 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</p>
Condition Assessment Date	Condition Assessment Date	Date of the most recent assessment of the dam

[illegible]

NID Storage	NID Storage	Calculated field: Maximum value of normal storage and maximum storage. Accepted as the general storage of the dam.
Surface Area	Surface Area	Surface area, in acres, of the impoundment at its normal retention level.
Number of Locks	Number of Locks	Number of existing navigation locks for the project
Length of Locks	Length of Locks	Length of the primary navigation lock to the nearest foot
Lock Width	Width of Locks	Width of the primary navigation lock to the nearest foot
NID Height	NID Height	Calculated field: Maximum value of dam height, structural height, and hydraulic height. Accepted as the general height of the dam.
Hydraulic Height	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 (usually PMF level) and the lowest point in the original streambed.
Dam Height	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.
Structural Height	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.
Dam Length	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.
Dam Type	Type of Dam	The material and engineering methods used to design the dam, such as earth, rockfill, gravity, concrete, etc.
Codes indicating type of dam		Codes, in order of importance, to indicate the type of dam: RE for Earth; ER for Rockfill; PG for Gravity; CB for Buttress; VA for Arch; MV for Multi-Arch; RC for Roller-Compacted Concrete; CN for Concrete; MS for Masonry; ST for Stone; TC for Timber Crib; OT for Other. Codes are concatenated if the dam is a combination of several types. For example, the entry CNCB would indicate a concrete buttress dam type
Core	Core	Code to indicate the position, type of watertight member and certainty, Position: F for upstream facing; H for homogeneous dam; I for core; X for unlisted/unknown; Type: A for bituminous concrete; C for concrete; E for earth; M for metal; P for plastic; X for unlisted/unknown; Certainty: K for known; Z for estimated;
Foundation	Foundation	Code for the material upon which dam is founded, and certainty: Foundation: R for rock; RS for rock and soil; S for soil; U for unlisted/unknown. Certainty: K for known; Z for estimated.
Volume of Dam	Volume	Volume of Dam (Cubic yards, Number) 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.
Drainage Area	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.
River or Stream	Stream Name	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., TRSnake. If the dam is located offstream, enter the name of the river or stream plus the word, “OFFSTREAM,” e.g., Snake OFFSTREAM.
Outlet Gates	NID Outlet type	Code(s) that describe the type of (1) spillway and (2) controlled outlet gates, if any: X for None; U for Uncontrolled; T for Tainter (radial); L for Vertical Lift; R for Roller; B for Bascule; D for Drum; N for Needle; F for Flap; S for Slide (sluice gate); V for Valve; O for Other controlled. Allowed up to five types in decreasing size order, separated by semicolons, followed by number of gates.

Spillway Type	NID Spillway type	Code that describes the type of spillway: C for Controlled; U for Uncontrolled; N for None.
Spillway Width	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.
Maximum Discharge	Spillway max Discharge	Number of cubic feet per second (cu ft/sec) which the spillway is capable of discharging when the reservoir is at its maximum designed water surface elevation.
Inspection Date	Last Inspection Date	The last date an inspection was performed by Dam Safety Staff or their consultants at the dam structure. This is automatically filled in based on inspection table. This is the date of the physical inspection, not the date of the report.
Inspection Frequency	Inspection Frequency	The frequency of inspections required by law for this dam (currently every 5 years)
Emergency Action Plan	EAP	Yes indicates Dam Safety has an Emergency Action Plan on File, No indicates they do not. This is automatically filled in based on the electronic EAP.
Date of Last Revision of Emergency Action Plan	EAP Date	The date the Emergency Action plan was last updated. This is automatically filled in based on the Electronic EAP.
Non-Federal Dam On Federal Property	Private Dam On Fed Prop	Code indicating whether this dam is a non-federal dam located on federal property: Y for Yes; N for No.
Federal Agency Involvement in Funding	Fed Funding	Code identifying which federal agency was involved in funding of the dam. Codes are separated by semi-colon if several agencies were involved.
Federal Agency Involvement in Design	Fed Design	Code identifying which federal agency was involved in the design of the dam. Codes are separated by semi-colon if several agencies were involved.
Federal Agency Involvement in Construction	Fed Construction	Code identifying which federal agency was involved in the construction of the dam. Codes are separated by semi-colon if several agencies were involved.
Federal Agency Involvement in Regulatory	Fed Regulatory	Code identifying which federal agency is involved in the regulation of the dam. Codes are separated by semi-colon if several agencies are involved.
Federal Agency Involvement in Inspection	Fed Inspection	Code identifying which federal agency is involved in the inspection of the dam. Codes are separated by semi-colon if several agencies are involved.
Federal Agency Involvement in Operation	Fed Operation	Code identifying which federal agency is involved in the operation of the dam. Codes are separated by semi-colon if several agencies are involved.
Federal Agency Owner	Fed Owner	Code identifying which federal agency partly or wholly owns the dam. Codes are separated by semi-colon if several owners are involved.
Federal Agency Involvement - Other	Fed Other	Code identifying which federal agency is involved in other aspects of the dam. Codes are separated by semi-colon if several owners are involved.
Source Agency	Source Agency	Primary state or federal agency responsible for data. This is a calculated field by NID
Submit Date	Submit Date	Date data was submitted to the US Army Corps of Engineers for inclusion to the National Inventory of Dams.