



**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

**Mike Kehoe**  
Governor

**Kurt U. Schaefer**  
Director

April 4, 2025

Lakewood Hills Homeowners Association  
Ms. Judy Meixner  
P.O. Box 414  
Eureka, Missouri 63025

[jmeixner2018@gmail.com](mailto:jmeixner2018@gmail.com)

RE: Gem Lake Dam (MO30465) Jefferson County

Dear Ms. Meixner:

As a result of an inspection of the Gem Lake Dam on March 18, 2025 I am pleased to inform you that Registration Permit R-513 has been renewed and is enclosed for your use. The permit will be valid for a period of three years at your request and will expire on March 27, 2028. At that time the dam will be reinspected by the Dam and Reservoir Safety Program at no cost to you. The permit is being issued for three years based on your request and the downstream environmental zone classification.

Please refer to the enclosed inspection report for additional information on the inspection. If you have any questions or need further assistance, please feel free to contact Denise Rittenhouse at 573- 368-2175. Thanks for your cooperation.

Sincerely,

**MISSOURI GEOLOGICAL SURVEY**

Ryan P. Stack, P.E.  
Chief Engineer  
Dam and Reservoir Safety Program

RPS/cjc  
Enclosures

**STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
DAM AND RESERVOIR SAFETY COUNCIL  
SAFETY PERMIT**

Pursuant to Chapters 236.400 through 236.500 of the Revised Statutes of Missouri and the rules established by the Dam and Reservoir Safety Council, and on the basis of an inspection by the Department of Natural Resources for the Gem Lake Dam, Jefferson County, all of which are made a part hereof by reference, **PERMISSION IS HEREBY GRANTED** to Lakewood Hills Homeowners Association, hereafter known as the permittee, whose address for the purpose of notices and other communications pertaining to this permit is P.O. Box 414; Eureka, Missouri 63025, which address is subject to change by written notice from the permittee, **TO OPERATE** said dam and reservoir located in Section 33, Township 43 North, Range 3 East, having identification number of MO30465, a dam height of 38 feet, a principal spillway elevation of 94.7 feet (site datum), a minimum crest elevation of 96.2 feet (site datum), a reservoir area of 2.5 acres at the water storage elevation and approximate UTM Coordinates of 4,255,672 meters North and 700971 meters East, Zone 15, subject to the following provisions:

**GENERAL PROVISIONS:**

1. No liability shall be imposed upon or incurred by the State of Missouri and/or the Dam and Reservoir Safety Council, or any of their officers, agents, employees, and members, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors, or closed corporations or successors relating to any matter hereunder. This permit shall not be construed as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees or contractors for any damages or injury resulting from any such act or omission by them or for violation of or failure to comply with the provisions of the permit or applicable provisions of law.
2. The permittee shall comply with all Federal, State and local laws and regulations, and shall obtain such other permits as may be required.

3. In cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using or damaging of any property rights or interest of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, it is the sole responsibility of the permittee, before proceeding therewith, to obtain the written consent of all persons, agencies, or authorities concerned, and to acquire all property, rights and interests necessary therefore, including flood easements or permissions for all properties which may be inundated by the dam on a temporary or permanent basis in the upstream impoundment area below the top of dam elevation.
4. The permittee shall notify the Dam and Reservoir Safety Council in writing upon the sale or other transfer of interest in the dam or reservoir.
5. Based on conditions existing at the time of issuing this permit, the Downstream Environment Zone is Class III. Future development in the vicinity of the dam and flood plain below the dam may result in a change in classification. This change will necessitate hydraulic and structural upgrading of the dam so the dam is in compliance with the rules and regulations of the Missouri Dam and Reservoir Safety Council. Permittee or its representatives, successors or assigns shall perform any such upgrading upon a change in classification and upon notification from the Missouri Dam and Reservoir Safety Council.
6. The permittee shall not alter, enlarge, reduce, repair or remove the dam, reservoir or appurtenances without first obtaining a construction permit from the Dam and Reservoir Safety Council.
7. The permittee shall immediately notify in writing, the Chief Engineer of any conditions relating to the structural stability of, hydraulic capacity of, or seepage through the dam discovered during the term of this permit which may differ from those conditions identified in the renewal inspection summary.
8. The terms and provisions of this permit shall extend to and bind the successors in authority of the Dam and Reservoir Safety Council and the legally assigned successors in interest of the permittee.
9. Maintenance of the dam and reservoir herein permitted shall be the responsibility of the permittee.
10. At your request, the term of this permit shall be two (3) years from the date of issue, in order to be consistent with the term of the current registration permit issued for the Crystal Lake Dam (MO30462) and will expire on March 27, 2028. The permittee shall apply for renewal not less than sixty (60) days prior to this expiration date.

Executed at Rolla, Missouri on this 4<sup>th</sup> day of April  
2025

**DAM & RESERVOIR SAFETY COUNCIL**

By \_\_\_\_\_  
Chief Engineer  
Dam and Reservoir Safety Program



ID #: MO30465	GEM LAKE DAM	INSPECTION DATE: March 18, 2025
JEFFERSON COUNTY	PERMIT NUMBER: R-513	HAZARD CLASS: III
EARTHFILL	INSPECTION TEAM: Rittenhouse/Jett	PLSS: T43NR03ES33

## DAM & RESERVOIR SAFETY PROGRAM DAM INSPECTION REPORT

OWNER:	LAKEWOOD HILLS HOMEOWNERS ASSOCIATION	
ADDRESS:	C/O JUDY MEIXNER	
	P.O. BOX 414	
CITY/STATE/ZIP:	EUREKA, MISSOURI 63025	
TELEPHONE:	636-257-0946	
EMAIL:	jmeixner2018@gmail.com	
SPILLWAY TYPE(S):	PRINCIPAL	Open channel on right abutment
	AUXILIARY	None

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### ENGINEER CERTIFICATION

- ☒ I hereby certify that GEM LAKE DAM was inspected in accordance with RSMO 236.400 through RSMO 236.500.
- ☒ I hereby certify that GEM LAKE DAM did not have any observed defects that required correction at the time of the inspection.
- ☒ Judgement of Slope Stability – The embankment and appurtenant structures appeared to be in good overall condition at the time of the inspection, with no indications of slope instability or excessive seepage.
- ☐ Defects were found that will have to be corrected prior to the permit being renewed.

*Denise Rittenhouse*

INSPECTING ENGINEER  
Denise Rittenhouse



INSPECTING ENGINEER  
Kelsey Jett, PE  
Missouri Engineer, PE-2024007017



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## INSPECTION CHECKLIST

Item	Condition	Issue	Comments
1. Upstream face/riprap	NP		
2. Crest	NP		
3. Downstream face	OR	Erosion Likely	Continue to monitor the downstream face for developing erosion in areas with no grass cover. Establish grass cover on the bare spots. Kentucky 31 tall fescue is recommended.
4. Left groin	OR	Erosion	Continue to monitor erosion gulley developing in the upper 1/3 of the left groin.
5. Right groin	NP		
6. Toe of dam	MR	Vegetation	Cut and remove the brush from the toe of the dam below the road bench. The toe of the dam continues below the road for approximately 10 more feet.
7. Principal spillway	MR	Vegetation	Cut and remove woody vegetation from the edge of the principal spillway channel. The large tree may remain but cut the smaller vegetation upstream of the large tree. See photos for clarification.
8. Principal spillway outlet channel	NP		
9. Auxiliary spillway	NA		
10. Auxiliary spillway outlet channel	NA		
11. Embankment drains	NA		
12. Lake drain gates/valves	NA		
13. Other	OR	Exposed Geotextile	Monitor condition of geotextile above the road. Patch any holes with pieces of similar material. Consult designer to determine acceptability of covering exposed geotextile with soil and seeding for protection from elements.

**NP** = No Problem observed  
**EC** = Emergency Condition

**MR** = Maintenance Required  
**OR** = Observation Required

**DO** = Defect Observed  
**NA** = Not Applicable



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### SURVEY and FREEBOARD DATA

STATION	ELEVATION (ft.) <sup>1</sup>	COMMENTS
TBM	100.0	Temporary benchmark – Concrete sill on downstream side of high voltage box on left abutment
PS	94.7	Principal spillway inlet
AS	NA	Auxiliary spillway sill
Dam	96.2	Low point on crest of dam
WL	89.1	Water level on day of inspection
Other	NA	NA
Freeboard (ft.)	Available	Required
	1.5	0.8

<sup>1</sup>Elevations are based on an assumed, local site datum of 100.0 feet at the temporary benchmark

Equipment used ☒ GPS system ☐ Auto level and rod

### INSPECTION PHOTOS



Upstream face



Downstream face



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Principal spillway inlet



Principal spillway outlet



Bare soil on downstream face



Bare soil on downstream face



Vegetation to remove at toe of dam below road



Woody vegetation to remove by spillway



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Erosion in left groin



Exposed geotextile