**DAM SAFETY INSPECTION REPORT**

**NAME OF DAM:**

**DATE:**

|  |  |  |
| --- | --- | --- |
| Dam Inspected By: |       |  |
| Owner Representative: |       |
| Weather: |       |
|  |
| Inventory No: |       | Owner: |       |
| Hazard Category: |       | Operator: |       |
| Type of Dam: |       | Stream(s): |       |
| Year Built: |       | Drainage Area: |       |
| Year Rehabilitated: |       |  |
| **RESERVOIR STORAGE STATUS** |
|  | Water Surface Elevation(Feet) | Storage(Acre-Feet) |
| At Time of Inspection: |       |       |
| At Spillway Crest: |       |       |
| At Min Dam Crest Elevation: |       |       |
|  |

1. **Embankment**
2. **Crest**

|  |  |  |  |
| --- | --- | --- | --- |
| Height: |       | Width: |       |
| Length: |       | Surface: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Settlement | [ ]  | [ ]  |       |
| 2 | Misalignment | [ ]  | [ ]  |       |
| 3 | Transverse Cracking | [ ]  | [ ]  |       |
| 4 | Longitudinal Cracking | [ ]  | [ ]  |       |
| 5 | Traffic or Roadway Damage | [ ]  | [ ]  |       |
| 6 | Animal Damage | [ ]  | [ ]  |       |
| 7 | Erosion | [ ]  | [ ]  |       |
| 8 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 9 | Other | [ ]  | [ ]  |       |

1. **Upstream Face**

|  |  |  |  |
| --- | --- | --- | --- |
| Upper Slope Ratio: |       | Lower Slope Ratio: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Longitudinal Cracks | [ ]  | [ ]  |       |
| 3 | Transverse Cracks | [ ]  | [ ]  |       |
| 4 | Adequate Riprap Protection | [ ]  | [ ]  |       |
| 5 | Riprap Deterioration | [ ]  | [ ]  |       |
| 6 | Settlement/Depressions | [ ]  | [ ]  |       |
| 7 | Slumps/Sloughs | [ ]  | [ ]  |       |
| 8 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 9 | Animal Damage | [ ]  | [ ]  |       |
| 10 | Debris | [ ]  | [ ]  |       |
| 11 | Other | [ ]  | [ ]  |       |

1. **Downstream Face**

|  |  |
| --- | --- |
| Slope Ratio: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Longitudinal Cracks | [ ]  | [ ]  |       |
| 3 | Transverse Cracks | [ ]  | [ ]  |       |
| 4 | Settlement/Depressions | [ ]  | [ ]  |       |
| 5 | Slumps/Sloughs | [ ]  | [ ]  |       |
| 6 | Seepage | [ ]  | [ ]  |       |
| 7 | Adequate Vegetation Cover | [ ]  | [ ]  |       |
| 8 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 9 | Animal Damage | [ ]  | [ ]  |       |
| 10 | Debris | [ ]  | [ ]  |       |
| 11 | Other | [ ]  | [ ]  |       |

1. **Abutment and Toe**
2. **Downstream Toe**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Seepage | [ ]  | [ ]  |       |
| 2 | Depressions/Bulges | [ ]  | [ ]  |       |
| 3 | Boils | [ ]  | [ ]  |       |
| 4 | Toe Drain in Good Condition | [ ]  | [ ]  |       |
| 5 | Toe Drain Flowing | [ ]  | [ ]  |       |
| 6 | Relief Wells Flowing | [ ]  | [ ]  |       |
| 7 | Erosion | [ ]  | [ ]  |       |
| 8 | Animal Damage | [ ]  | [ ]  |       |
| 9 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 10 | Other | [ ]  | [ ]  |       |

1. **Upstream Abutment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Cracking | [ ]  | [ ]  |       |
| 3 | Slides/Depressions | [ ]  | [ ]  |       |
| 4 | Sinkholes | [ ]  | [ ]  |       |
| 5 | Nuisance Vegetation  | [ ]  | [ ]  |       |
| 6 | Animal Damage | [ ]  | [ ]  |       |
| 7 | Debris | [ ]  | [ ]  |       |
| 8 | Other | [ ]  | [ ]  |       |

1. **Downstream Abutment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Cracking | [ ]  | [ ]  |       |
| 3 | Slides/Depressions | [ ]  | [ ]  |       |
| 4 | Seepage | [ ]  | [ ]  |       |
| 5 | Drains Flowing | [ ]  | [ ]  |       |
| 6 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 7 | Animal Damage | [ ]  | [ ]  |       |
| 8 | Debris | [ ]  | [ ]  |       |
| 9 | Other | [ ]  | [ ]  |       |

1. **Outlet Works**

|  |  |  |  |
| --- | --- | --- | --- |
| Location: |       | Maximum Discharge: |       |

1. **Intake Structure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Visible: |       | Date Last Inspected: |       | Type: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Settlement | [ ]  | [ ]  |       |
| 2 | Concrete Cracking | [ ]  | [ ]  |       |
| 3 | Concrete Spalling | [ ]  | [ ]  |       |
| 4 | Concrete Erosion | [ ]  | [ ]  |       |
| 5 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 6 | Joint Displacement | [ ]  | [ ]  |       |
| 7 | Problems with Trash Rack | [ ]  | [ ]  |       |
| 8 | Corrosion of Trash Rack | [ ]  | [ ]  |       |
| 9 | Erosion Around Intake | [ ]  | [ ]  |       |
| 10 | Deposition Around Intake | [ ]  | [ ]  |       |
| 11 | Other | [ ]  | [ ]  |       |

1. **Upstream Conduit**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Type: |       | Size: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Concrete Cracking | [ ]  | [ ]  |       |
| 2 | Concrete Spalling | [ ]  | [ ]  |       |
| 3 | Concrete Erosion | [ ]  | [ ]  |       |
| 4 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 5 | Joint Displacement | [ ]  | [ ]  |       |
| 6 | Loss of Joint Material | [ ]  | [ ]  |       |
| 7 | Open Joints or Holes in the Wall | [ ]  | [ ]  |       |
| 8 | Leakage | [ ]  | [ ]  |       |
| 9 | Calcium Deposits | [ ]  | [ ]  |       |
| 10 | Corrosion of Metal | [ ]  | [ ]  |       |
| 11 | Wear of Protective Coatings | [ ]  | [ ]  |       |
| 12 | Misalignment of Conduit | [ ]  | [ ]  |       |
| 13  | Material Deposition | [ ]  | [ ]  |       |
| 14 | Other | [ ]  | [ ]  |       |

1. **Downstream Conduit**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Type: |       | Size: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Concrete Cracking | [ ]  | [ ]  |       |
| 2 | Concrete Spalling | [ ]  | [ ]  |       |
| 3 | Concrete Erosion | [ ]  | [ ]  |       |
| 4 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 5 | Joint Displacement | [ ]  | [ ]  |       |
| 6 | Loss of Joint Material | [ ]  | [ ]  |       |
| 7 | Open Joints or Holes in the Wall | [ ]  | [ ]  |       |
| 8 | Leakage | [ ]  | [ ]  |       |
| 9 | Calcium Deposits | [ ]  | [ ]  |       |
| 10 | Corrosion of Metal | [ ]  | [ ]  |       |
| 11 | Wear of Protective Coatings | [ ]  | [ ]  |       |
| 12 | Misalignment of Conduit | [ ]  | [ ]  |       |
| 13  | Material Deposition | [ ]  | [ ]  |       |
| 14 | Other | [ ]  | [ ]  |       |

1. **Gatehouse and Tower**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Vandalism | [ ]  | [ ]  |       |
| 2 | Ladder in Good Condition | [ ]  | [ ]  |       |
| 3 | Grating in Good Condition | [ ]  | [ ]  |       |
| 4 | Fall Protection in Good Condition | [ ]  | [ ]  |       |
| 5 | Seepage from Tower Walls | [ ]  | [ ]  |       |
| 6 | Debris in Bottom of the Tower | [ ]  | [ ]  |       |
| 7 | Pooling Water in Bottom of Tower | [ ]  | [ ]  |       |
| 8 | O&M and EAP Available | [ ]  | [ ]  |       |
| 9 | Other | [ ]  | [ ]  |       |

1. **Operating Gate (Slide Gate)**

|  |  |  |  |
| --- | --- | --- | --- |
|  Inspected current year: |       | Type: |       |
| Not inspected current year: |       | Size: |       |
| Stem, pre-inspected, in: |       | Stem, during inspection, in: |       |
| Stem, during guard gate operation, in: |       | Stem, post-inspection, in: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Operated During Inspection | [ ]  | [ ]  |       |
| 2 | Operator Operational | [ ]  | [ ]  |       |
| 3 | Operator Lubricated | [ ]  | [ ]  |       |
| 4 | Stem in Good Condition | [ ]  | [ ]  |       |
| 5 | Leakage from Gate | [ ]  | [ ]  |       |
| 6 | Gate Leaf in Good Condition | [ ]  | [ ]  |       |
| 7 | Gate Frame in Good Condition | [ ]  | [ ]  |       |
| 8 | Air Vent in Good Condition | [ ]  | [ ]  |       |
| 9 | Cavitation Damage | [ ]  | [ ]  |       |
| 10  | Other | [ ]  | [ ]  |       |

1. **Guard Gate**

|  |  |  |  |
| --- | --- | --- | --- |
|  Stem, pre-operation, in: |       | Type: |       |
| Stem, closed/during inspection, in: |       | Size: |       |
| Stem, post-operation, in: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Operated During Inspection | [ ]  | [ ]  |       |
| 2 | Operator Operational | [ ]  | [ ]  |       |
| 3 | Operator Lubricated | [ ]  | [ ]  |       |
| 4 | Stem in Good Condition | [ ]  | [ ]  |       |
| 5 | Gate Housing in Good Condition | [ ]  | [ ]  |       |
| 6 | Leakage from Flanges | [ ]  | [ ]  |       |
| 7 | Leakage from Stem Packing | [ ]  | [ ]  |       |
| 8 | Leakage from Gate | [ ]  | [ ]  |       |
| 9 | Gate Leaf in Good Condition | [ ]  | [ ]  |       |
| 10 | Other | [ ]  | [ ]  |       |

1. **Operating Gate**

|  |  |  |  |
| --- | --- | --- | --- |
|  Inspected current year: |       | Type: |       |
| Not inspected current year: |       | Size: |       |
| Stem, pre-inspected, in: |       | Stem, during inspection, in: |       |
| Stem, during guard gate operation, in: |       | Stem, post-inspection, in: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Operator Operational | [ ]  | [ ]  |       |
| 2 | Operator Lubricated | [ ]  | [ ]  |       |
| 3 | Stem in Good Condition | [ ]  | [ ]  |       |
| 4 | Gate Housing in Good Condition | [ ]  | [ ]  |       |
| 5 | Leakage from Flanges | [ ]  | [ ]  |       |
| 6 | Leakage from Cylinder | [ ]  | [ ]  |       |
| 7 | Leakage from Gate | [ ]  | [ ]  |       |
| 8 | Gate Leaf in Good Condition | [ ]  | [ ]  |       |
| 9 | Air Vent in Good Condition | [ ]  | [ ]  |       |
| 10  | Cavitation Damage | [ ]  | [ ]  |       |
| 11 | Other | [ ]  | [ ]  |       |

1. **Outlet and Stilling Basin**

|  |  |  |  |
| --- | --- | --- | --- |
| Type: |       | Dewatered for inspection: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Concrete Cracking | [ ]  | [ ]  |       |
| 2 | Concrete Spalling | [ ]  | [ ]  |       |
| 3 | Concrete Erosion | [ ]  | [ ]  |       |
| 4 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 5 | Exposed Water Stops | [ ]  | [ ]  |       |
| 6 | Displacement or Offset of Joints | [ ]  | [ ]  |       |
| 7 | Seepage | [ ]  | [ ]  |       |
| 8 | Debris | [ ]  | [ ]  |       |
| 9 | Riprap Protection Stable | [ ]  | [ ]  |       |
| 10 | Other | [ ]  | [ ]  |       |

1. **Downstream Channel**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Seepage | [ ]  | [ ]  |       |
| 2 | Erosion | [ ]  | [ ]  |       |
| 3 | Riprap Protection Stable | [ ]  | [ ]  |       |
| 4 | Deterioration of Riprap | [ ]  | [ ]  |       |
| 5 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 6 | Debris | [ ]  | [ ]  |       |
| 7 | Overtopping | [ ]  | [ ]  |       |
| 8 | Grade Problems | [ ]  | [ ]  |       |
| 9 | Other | [ ]  | [ ]  |       |

1. **Primary Spillway**

|  |  |  |  |
| --- | --- | --- | --- |
| Location: |       | Type: |       |
| Operating: |       | Maximum Discharge: |       |
| At Res. El.: |       |

1. **Approach Area**

|  |  |
| --- | --- |
| Visible During Inspection: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Deposition/Debris | [ ]  | [ ]  |       |
| 2 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 3 | Obstructions | [ ]  | [ ]  |       |
| 4 | Other | [ ]  | [ ]  |       |

1. **Weir**

|  |  |  |  |
| --- | --- | --- | --- |
| Location: |       | Type of Weir: |       |
| Operating: |       | Length: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Concrete Cracking | [ ]  | [ ]  |       |
| 2 | Concrete Spalling | [ ]  | [ ]  |       |
| 3 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 4 | Exposed Water Stops | [ ]  | [ ]  |       |
| 5 | Blockage of Drains | [ ]  | [ ]  |       |
| 6 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 7 | Debris | [ ]  | [ ]  |       |
| 8 | Other | [ ]  | [ ]  |       |

1. **Chute**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Width: |       | Length: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Concrete Cracking | [ ]  | [ ]  |       |
| 2 | Concrete Spalling | [ ]  | [ ]  |       |
| 3 | Concrete Erosion | [ ]  | [ ]  |       |
| 4 | Exposed Reinforcement | [ ]  | [ ]  |       |
| 5 | Exposed Water Stops | [ ]  | [ ]  |       |
| 6 | Displacement or Offset of Joints | [ ]  | [ ]  |       |
| 7 | Joint Sealant in Good Condition | [ ]  | [ ]  |       |
| 8 | Deterioration of Dissipaters | [ ]  | [ ]  |       |
| 9 | Drains in Good Condition | [ ]  | [ ]  |       |
| 10 | Seepage from Drains | [ ]  | [ ]  |       |
| 11 | Seepage (not from drains) | [ ]  | [ ]  |       |
| 12 | Deposition of Material | [ ]  | [ ]  |       |
| 13 | Energy Dissipaters | [ ]  | [ ]  |       |
| 14 | Erosion of Stilling Basin | [ ]  | [ ]  |       |
| 15 | Debris in Stilling Basin | [ ]  | [ ]  |       |
| 16 | Other | [ ]  | [ ]  |       |

1. **Downstream Channel**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Width: |       | Length: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 3 | Debris | [ ]  | [ ]  |       |
| 4 | Seepage | [ ]  | [ ]  |       |
| 5 | Other | [ ]  | [ ]  |       |

1. **Auxiliary Spillway**

|  |  |  |  |
| --- | --- | --- | --- |
| Location: |       | Maximum Discharge: |       |
| Type: |       | At Res. El.: |       |

1. **Chute**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Description | [ ]  | [ ]  |       |
| 2 | Settlement | [ ]  | [ ]  |       |
| 3 | Excessive Crest Grade | [ ]  | [ ]  |       |
| 4 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 5 | Obstructions | [ ]  | [ ]  |       |
| 6 | Debris | [ ]  | [ ]  |       |
| 7 | Other | [ ]  | [ ]  |       |

1. **Reservoir Control**
2. **Development and Changes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | ITEM | YES | NO | REMARKS |
| 1 | Recent Upstream Development | [ ]  | [ ]  |       |
| 2 | Recent Downstream Development | [ ]  | [ ]  |       |
| 3 | Slides in Reservoir Area | [ ]  | [ ]  |       |
| 4 | Changes in Basin Hydrology | [ ]  | [ ]  |       |
| 5 | Change in Reservoir Operation | [ ]  | [ ]  |       |
| 6 | Large Impoundment Upstream | [ ]  | [ ]  |       |
| 7 | Significant Debris in Reservoir | [ ]  | [ ]  |       |
| 8 | Other | [ ]  | [ ]  |       |

1. **Instrumentation**

|  |  |
| --- | --- |
| Reservoir and Piezometers Monitored Manually: |       |
| Reservoir and Piezometers Monitored Automatically: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Description | [ ]  | [ ]  |       |
| 2 | Damage to Piezometers | [ ]  | [ ]  |       |
| 3 | Atypical Piezometer Data | [ ]  | [ ]  |       |
| 4 | Problems with Flumes/Weirs | [ ]  | [ ]  |       |
| 5 | Data Reviewed | [ ]  | [ ]  |       |
| 6 | Data Attached | [ ]  | [ ]  |       |
| 7 | Other | [ ]  | [ ]  |       |

1. **Downstream Condition**
2. **Downstream Land Use**

|  |
| --- |
|       |

1. **Spillway (Earthen Chute)**

|  |  |  |  |
| --- | --- | --- | --- |
| Location: |       | Type: |       |
| Operating: |       | Maximum Discharge: |       |
| At Res. El.: |       |

1. **Approach Area**

|  |  |
| --- | --- |
| Visible During Inspection: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Obstructions | [ ]  | [ ]  |       |
| 3 | Debris | [ ]  | [ ]  |       |
| 4 | Deposition of Material | [ ]  | [ ]  |       |
| 5 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 6 | Animal Damage | [ ]  | [ ]  |       |
| 7 | Other | [ ]  | [ ]  |       |

1. **Crest/Weir**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Type: |       | Length: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Obstructions | [ ]  | [ ]  |       |
| 3 | Debris | [ ]  | [ ]  |       |
| 4 | Deposition of Material | [ ]  | [ ]  |       |
| 5 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 6 | Animal Damage | [ ]  | [ ]  |       |
| 7 | Other | [ ]  | [ ]  |       |

1. **Earthen Chute/Downstream channel**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Accessible: |       | Channel Width: |       | Side Slopes: |       |
| # | ITEM | YES | NO | REMARKS |
| 1 | Erosion | [ ]  | [ ]  |       |
| 2 | Obstructions | [ ]  | [ ]  |       |
| 3 | Debris | [ ]  | [ ]  |       |
| 4 | Deposition of Material | [ ]  | [ ]  |       |
| 5 | Nuisance Vegetation | [ ]  | [ ]  |       |
| 6 | Animal Damage | [ ]  | [ ]  |       |
| 7 | Other | [ ]  | [ ]  |       |

Report completed by:

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| **COMMENTS** | **PHOTOS** |
| 1. **EMBANKMENT**
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| 1. **ABUTMENT & TOE**
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| 1. **OUTLET WORKS**
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| 1. **PRIMARY SPILLWAY**
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| 1. **AUXILIARY SPILLWAY**
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| 1. **RESERVOIR CONTROL**
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| 1. **INSTRUMENTATION**
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| 1. **DOWNSTREAM**
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| 1. **SPILLWAY**
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| **RECOMMENDATIONS** |
| **Maintenance/Repair** |
| **ID** | **Description** | **Status** |
|       |       |       |
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| **Annual Maintenance** |
| **ID** | **Description** | **Status** |
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