# DAM SAFETY PROGRAM

## DAM INSPECTION REPORT FORM – FOR REGULATORY INSPECTION

Please complete this form in accordance with the instructions (DEEP-DAM-INST-002).

### Part I: Summary of Dam Inspection

<table>
<thead>
<tr>
<th>Dam Name:</th>
<th>House Rest Pond Dam</th>
<th>Inspection Date(s):</th>
<th>1/20/2016</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Alternate Dam Name(s):</th>
<th>N/A</th>
<th>CT Dam ID #:</th>
<th>12812</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Location (Municipality):</th>
<th>Simsbury</th>
<th>Temperature / Weather:</th>
<th>Clear 25°</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Registered?: Yes or No</th>
<th>Yes</th>
<th>Pool Level:</th>
<th>= Crest of spillway</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Emergency Action Plan?: Yes or No</th>
<th>No</th>
<th>Impoundment Use:</th>
<th>Recreation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Yes or No</th>
<th>Stability Analysis?: Yes or No</th>
<th></th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydraulics and Hydrologic Analysis?: Yes or No</th>
<th>No</th>
<th>If Yes, see instructions</th>
</tr>
</thead>
</table>

Overall Condition: (refer to Appendix A located at the end of this form) **Poor**

### Persons present at the inspection

<table>
<thead>
<tr>
<th>Person's Name</th>
<th>Title/Position</th>
<th>Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen R. McDonnell, P.E.</td>
<td>Vice President</td>
<td>WMC Consulting Engineers, Inc.</td>
</tr>
</tbody>
</table>

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DEEP-DAM-FRM-002  Page 1 of 18  Rev. 02/11/2014
**Owners and Operators:** If there is more than one owner or operator, copy the empty table below for each owner or operator and paste right below the previous table, then complete the information for each.

*By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject report. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes by email via deep.damsafety@ct.gov.*

<table>
<thead>
<tr>
<th>Indicate if Owner or Operator: Owner</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> Town of Simsbury</td>
<td>State: CT Zip Code: 06070</td>
</tr>
<tr>
<td><strong>Mailing Address:</strong> 933 Hopmeadow Street</td>
<td>ext.: N/A</td>
</tr>
<tr>
<td><strong>City/Town:</strong> Simsbury</td>
<td>Phone: (860) 658-3260</td>
</tr>
<tr>
<td><strong>Emergency Phone:</strong> (860) 658-1973</td>
<td><em>E-mail: <a href="mailto:jshea@simsbury-ct.gov">jshea@simsbury-ct.gov</a></em></td>
</tr>
</tbody>
</table>
### General Dam Information

<table>
<thead>
<tr>
<th>General Description:</th>
<th>Low Earthfill dam with masonry spillway</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard Classification:</strong></td>
<td>BB</td>
</tr>
<tr>
<td><strong>Dam Height (ft):</strong></td>
<td>6</td>
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<tr>
<td><strong>Dam Length (ft):</strong></td>
<td>100</td>
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<tr>
<td><strong>Spillway Length (ft):</strong></td>
<td>6</td>
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<tr>
<td><strong>Spillway Type:</strong></td>
<td>Broad Crested</td>
</tr>
<tr>
<td><strong>Normal Freeboard (ft):</strong></td>
<td>1.5</td>
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<tr>
<td><strong>Drainage Area (square miles):</strong></td>
<td>0.25</td>
</tr>
<tr>
<td><strong>Impoundment Area (at principal spillway crest, in acres):</strong></td>
<td>0.65</td>
</tr>
<tr>
<td><strong>Watercourse(s):</strong></td>
<td>Unnamed brook near mouth of Hop Brook</td>
</tr>
</tbody>
</table>

**OTHER INFORMATION:** (see instructions) Dam is adjacent to public library and has regular pedestrian traffic across embankment. Wood bridge crosses spillway. No low-level outlet observed.
Part IV: Dam/Embarkment/Dike Information

Number of Dam/Embarkments/Dikes: 1 (if there is more than one dam/embankment or dike, reproduce this section and paste right below the previous section)

Dam/Embarkment/Dike Name (see instructions): Main
General Description: Low Earthfill embankment
General Condition: Fair
Concrete Condition: N/A
Stone Masonry: N/A
Settlement/Alignment/Movement: Minor settling
Seepage/Foundation Drainage: No seepage observed
Riprap: Single row of flat concrete units to right, small riprap on embankment to left, both adequate for small pond which has little wave action.
Erosion/Burrows: None
Vegetative Cover: Top of embankment mostly covered by moss.
Other: Top of embankment is uneven. Large trees growing on downstream side of embankment.
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 1: Embankment from right abutment
Photo 2: Footbridge over spillway

Photo 3: Left abutment, ruts on embankment, concrete paver protection
Part V: Principal Spillway, Training Walls, Apron

Number of Principal Spillways: 1  (if there is more than one principal spillway, reproduce this section and paste right below the previous section)

Spillway Type (see instructions): Broad crested stone masonry
General Description: Simple stone spillway with no controls
General Condition: Fair
Concrete Condition: N/A
Stone Masonry: Loose and leaking
Settlement/Alignment/Movement: Some settlement - inadequate support for footbridge
Cracks: Gaps at top of spillway
Scouring/Undermining: None observed
Seepage/Foundation Drainage: Leaking throughout
Other: Poor connection to wing walls leaves gaps to sides, wings walls nearly completely failed
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 4: Main spillway and wing walls
Photo 5: Right wing wall

Photo 6: Left wing wall
Part VI: Auxiliary Spillway, Training Walls, Apron

Number of Auxiliary Spillways: 1 (if there is more than one auxiliary spillway, reproduce this section and paste right below the previous section)

Auxiliary Spillway Type (see instructions): Right embankment
General Description: Shallow riprap lined channel, no control
General Condition: Good
Concrete Condition: N/A
Stone Masonry: N/A
Settlement/Alignment/Movement: None
Cracks: N/A
Scouring/Undermining: None
Vegetative Cover: N/A
Riprap: Good
Seepage/Foundation Drainage: N/A
Other: Spillway did not show evidence of recent use.
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 7: Auxiliary spillway at right abutment
House Rest Pond Dam
Error! Reference source not found.
Part VII: Downstream Channel

Number of Downstream Channels: 1 (if there is more than one downstream channel, reproduce this section and paste right below the previous section)

Channel Name (see instructions), include Watercourse Name: Natural channel for unnamed stream
General Description: Small slightly sinuous natural brook channel
General Condition: Good
Scouring: None
Debris: Small tree limbs
Riprap: None
Other: Due to leakage of spillway stream flows continuously, has natural appearance
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 8: Looking downstream from dam
Part VIII: Intake Structure(s)

Number of Intake Structures: 0 (if there is more than one intake structure, reproduce this section and paste right below the previous section)

Intake Structure Type (see instructions): N/A
General Description: N/A
General Condition: N/A
Concrete Condition: N/A
Stone Masonry: N/A
Settlement/Alignment/Movement: N/A
Cracks: N/A
Other: N/A
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Part IX: Outlet Structure(s)

Number of Outlet Structures: 0 (if there is more than one outlet structure, reproduce this section and paste right below the previous section)

Outlet Structure Type (see instructions): N/A
General Description: N/A
General Condition: N/A
Concrete Condition: N/A
Stone Masonry: N/A
Settlement/Alignment/Movement: N/A
Scouring/Undermining: N/A
Other: N/A
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Part X: Miscellaneous Features

List miscellaneous features: (e.g., access roads, bridges, etc.): None

Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)
Part XI: Downstream Hazard Classification Reassessment

Downstream Hazard Classification: (provide recommendation for the hazard class based on the Dam Safety regulation. See Instructions and Appendix B.)

Given small volume and low head, could consider revising hazard class to A

Part XII: Recommendations (See instructions for identifying recommendations)

Recommendations: (Each item should be numbered)
1. Drain pond, rebuild spillway and wing walls
2. Clear trees from embankment
3. Improve foundation for footbridge
4. Re-grade and reseed top of embankment
Part XIII: Photographs/Graphics (see instructions and Appendix C)

[insert photos/graphics here if not included in each part above]

Photo 9: Overview of Pond

Photo 10: Vegetation on embankment
Part XV: Professional Engineer Certification

The following certification must be signed by a Professional Engineer

"I hereby certify that the information provided in this report has been examined by me and found to be true and correct in my professional judgment."

[Signature] 9/18/16

Signature of Professional Engineer Date

Stephen R. McDonnell, P.E. Vice President 12010
Printed Name of Professional Engineer Title CT P.E. Number

WMC C
Name of Firm

Affix P.E. Stamp Here
Part XVI: Owner Signature

The following statement must be signed by the Owner(s) of the subject Dam.

"The information provided in this report has been examined by me."

<table>
<thead>
<tr>
<th>Signature of Owner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerome F. Shea</td>
<td>Title (if applicable)</td>
</tr>
<tr>
<td>Name of Owner (print or type)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature of Owner</th>
<th>Date</th>
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Note: Mail the completed inspection report to:

DAM SAFETY PROGRAM
INLAND WATER RESOURCES DIVISION
CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106

In addition, please send this completed report converted to Adobe portable document format (pdf) including a scan of the signature page via email to: DEEP_DamSafety@ct.gov
### DAM SAFETY PROGRAM
### DAM INSPECTION REPORT FORM – FOR REGULATORY INSPECTION

Please complete this form in accordance with the instructions (DEEP-DAM-INST-002).

## Part I: Summary of Dam Inspection

<table>
<thead>
<tr>
<th>Dam Name:</th>
<th>Stoddard Reservoir</th>
<th>Inspection Date(s):</th>
<th>1/20/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Dam Name(s):</td>
<td>N/A</td>
<td>CT Dam ID #:</td>
<td>12804</td>
</tr>
<tr>
<td>Location (Municipality):</td>
<td>Simsbury</td>
<td>Temperature / Weather:</td>
<td>30°, clear</td>
</tr>
<tr>
<td>Registered?: Yes or No</td>
<td>Yes</td>
<td>Pool Level:</td>
<td>Spillway + 1&quot;</td>
</tr>
<tr>
<td>Emergency Action Plan?: Yes or No</td>
<td>No</td>
<td>Impoundment Use:</td>
<td>Recreation</td>
</tr>
<tr>
<td>Hydraulic and Hydrologic Analysis?: Yes or No</td>
<td>No</td>
<td>Stability Analysis?:</td>
<td>No</td>
</tr>
</tbody>
</table>

Overall Condition: (refer to Appendix A located at the end of this form) **Fair**

<table>
<thead>
<tr>
<th>Persons present at the inspection (select the tab button in the last cell to the right to create another row)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Stephen R. McDonnell, P.E.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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</table>

DEEP-DAM-FRM-002 Page 1 of 21 Rev. 02/11/2014
**Owners and Operators:** If there is more than one owner or operator, copy the empty table below for each owner or operator and paste right below the previous table, then complete the information for each.

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<table>
<thead>
<tr>
<th>Indicate if Owner or Operator: Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: <strong>Town of Simsbury</strong></td>
</tr>
<tr>
<td>Mailing Address: 933 Hopmeadow Street</td>
</tr>
<tr>
<td>City/Town: Simsbury</td>
</tr>
<tr>
<td>Phone: (860) 658-3260</td>
</tr>
<tr>
<td>Emergency Phone: (860) 658-1973</td>
</tr>
<tr>
<td>*E-mail: <a href="mailto:jshea@simsbury-ct.gov">jshea@simsbury-ct.gov</a></td>
</tr>
<tr>
<td>State: CT</td>
</tr>
<tr>
<td>Zip Code: 06070</td>
</tr>
<tr>
<td>ext.:</td>
</tr>
</tbody>
</table>
**Part IV: Dam/Embankment/Dike Information**

**Number of Dam/Embankments/Dikes:** 1 *(if there is more than one dam/embankment or dike, reproduce this section and paste right below the previous section)*

**Dam/Embarkment/Dike Name (see instructions):** Main

**General Description:** Original dam section is dry rubble masonry. Low concrete cap with cast in place main spillway cast on top of rubble dam. Left end of dam is a low Earthfill embankment.

**General Condition:** Fair

**Concrete Condition:** Fair - spillway depth and width inadequate

**Stone Masonry:** Fair - some leaks

**Settlement/Alignment/Movement:** Some movement observed, but isolated

**Seepage/Foundation Drainage:** No seepage from base observed

**Riprap:** New dumped riprap left of spillway. Appears that dam overtopped and repairs to downstream left embankment were required.

**Erosion/Burrows:** None observed

**Vegetative Cover:** Vegetation too close on left and right abutments and on downstream embankment

**Other:** Pipe fence and newer chain link fence installed by coring holes in top of dam.

**Photos/Graphics/Sketches** *(insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)*

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*Photo 1: Main section of dam & spillway*
Photo 2: Leak in rubble embankment

Photo 3: Looking to right abutment
Photo 4: Left side of embankment, with dumped riprap repair

Photo 5: From spillway looking left
Part V: Principal Spillway, Training Walls, Apron

Number of Principal Spillways: 1  (If there is more than one principal spillway, reproduce this section and paste right below the previous section)

Spillway Type (see instructions): Broad Crested
General Description: Notch in cast in place cap over rubble section of dam
General Condition: Fair
Concrete Condition: Fair
Stone Masonry: N/A
Settlement/Alignment/Movement: Minor settlement of concrete cap section
Cracks: Some cracking, but not near spillway
Scouring/Undermining: None observed
Seepage/Foundation Drainage: None observed
Other: Pipe and chain link fence cross spillway, possibly causing blockage if branches wash into spillway.
Photos/Graphics/Sketches (Insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 6: Spillway - cast into concrete cap
Part VI: Auxiliary Spillway, Training Walls, Apron

Number of Auxiliary Spillways: None (if there is more than one auxiliary spillway, reproduce this section and paste right below the previous section)

Auxiliary Spillway Type (see instructions): N/A
General Description: N/A
General Condition: N/A
Concrete Condition: N/A
Stone Masonry: N/A
Settlement/Alignment/Movement: N/A
Cracks: N/A
Scouring/Undermining: N/A
Vegetative Cover: N/A
Riprap: N/A
Seepage/Foundation Drainage: N/A
Other: N/A
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)
Stoddard Reservoir

Error! Reference source not found.

Part VII: Downstream Channel

Number of Downstream Channels: 1 (if there is more than one downstream channel, reproduce this section and paste right below the previous section)

Channel Name (see instructions), include Watercourse Name: Stoddard Brook

General Description: short length of riprapped channel before reverting to natural channel into culvert under local roadway.

General Condition: Good

Scouring: None

Debris: Debris just below dam

Riprap: Good

Other: Channel does not show and erosion or evidence of shortage of capacity.

Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)

Photo 8: Debris in outlet channel just downstream of spillway
Part VIII: Intake Structure(s)

Number of Intake Structures: 1 (if there is more than one intake structure, reproduce this section and paste right below the previous section)

Intake Structure Type (see instructions): Right pipe
General Description: Cast iron pipe under dam embankment
General Condition: unknown
Concrete Condition: N/A
Stone Masonry: Good
Settlement/Alignment/Movement: Unknown
Cracks: N/A
Other: Intake area not visible
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)
Part IX: Outlet Structure(s)

Number of Outlet Structures: 1 (if there is more than one outlet structure, reproduce this section and paste right below the previous section)

Outlet Structure Type (see instructions): Right outlet pipe
General Description: Cast iron pipe under dam
General Condition: Unknown
Concrete Condition: N/A
Stone Masonry: Fair
Settlement/Alignment/Movement: None observed
Scouring/Undermining: Minor
Other: Outlet pipe is at grade and likely not used for a significant time
Photos/Graphics/Sketches (insert either below this Part or in Parts XIII and XIV, refer to the instructions under Parts XIII and XIV for additional details)
Part X: Miscellaneous Features

List miscellaneous features: (e.g., access roads, bridges, etc.): Walkway to right side of dam, low embankment to left, riprap repairs
Photo 12: Walkway around right side

Photo 13: Low embankment to left
Photo 14: Riprap repair downstream left

Photo 15: Upstream overview of dam
Part XI: Downstream Hazard Classification Reassessment

Downstream Hazard Classification: (provide recommendation for the hazard class based on the Dam Safety regulation. See Instructions and Appendix B.)

Current hazard classification (BB) appears to be correct.

Part XII: Recommendations (See instructions for identifying recommendations)

Recommendations: (Each item should be numbered)
1. Given minimal freeboard and spillway capacity, a hydrologic and hydraulic analysis is recommended.
2. Based on outcome of H&H analysis, consider revisions to spillway and outlet area.
3. Revise fencing to not cross revised spillway, and reduce potential for blockage of spillway.
Part XIII: Photographs/Graphics (see instructions and Appendix C)

[insert photos/graphics here if not included in each part above]

Photo 16: Reservoir overview
Part XV: Professional Engineer Certification

The following certification must be signed by a Professional Engineer:

"I hereby certify that the information provided in this report has been examined by me and found to be true and correct in my professional judgment."

Signature of Professional Engineer: [Signature]
Date: 9/13/16

Stephen R. McDonnell, P.E.  Vice President
Printed Name of Professional Engineer: Stephen R. McDonnell, P.E.
Title: 12010
CT P.E. Number: 12010

WMC Consulting Engineers, Inc.
Name of Firm:

Affix P.E. Stamp Here
Part XVI: Owner Signature

The following statement must be signed by the Owner(s) of the subject Dam.

"The information provided in this report has been examined by me."

<table>
<thead>
<tr>
<th>Signature of Owner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerome F. Shea</td>
<td></td>
</tr>
<tr>
<td>Name of Owner (print or type)</td>
<td>Town Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature of Owner</td>
<td>Date</td>
</tr>
<tr>
<td>Name of Owner (print or type)</td>
<td>Title (if applicable)</td>
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</tbody>
</table>

Note: Mail the completed inspection report to:

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**INLAND WATER RESOURCES DIVISION**
**CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION**
**79 ELM STREET**
**HARTFORD, CT 06106**

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