



North Carolina Department of Environment and Natural Resources
Division of Energy, Mineral and Land Resources

Tracy E. Davis, PE, CPM
Director

Land Quality Section

Pat McCrory, Governor
John E. Skvarla, III, Secretary

NOTICE OF INSPECTION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

7003 2260 0001 3551 6384

Date: March 11, 2014

Duke Energy Corporation
Attention: Sean DeNeale
526 South Church Street, ECI-013
Charlotte, North Carolina 28202

RE: Allen Retired Ash Basin Dam
GASTO-016 -- High Hazard Potential
Gaston County

Dear Mr. DeNeale:

The "Dam Safety Law of 1967," as amended, provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our record indicate that you are the owner and/or responsible for the referenced dam, which is located off Plant Allen Road in Gaston County and was inspected on February 19, 2014 and March 1, 2014 by personnel of the Land Quality Section. This inspection revealed the conditions outlined below. Please note that references to "right" and "left" in descriptions of the dam structure are referenced while looking in the downstream direction.

1. Five horizontal drains were observed in the downstream slope of the embankment. According to plant personnel, these drains are 8-inch perforated CMP with 18-inch perforated CMP vertical drains. The locations of the outfalls could not be located during this inspection. We did not find any documentation or plans regarding the locations of these drains and outfalls.

Mooresville Regional Office
610 East Center Avenue, Suite 301, Mooresville, North Carolina 28115
Telephone: 704-663-1699 / FAX: 704-663-6040 • Internet: <http://portal.ncdenr.org/web/lr/land-quality>
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Please submit a written response as quickly as possible, but no later than ten (10 days) following receipt of this letter of your intended actions in this matter. This response must include a written response with an anticipated date by which we can expect the documentations and plans regarding the locations of these drains and their outfalls.

2. Trees are growing on the dam, with tree debris left on the downstream slope and toe. Tree growth can cause problems and even failure of the dam by creating holes when trees are uprooted due to wind or ice; by leaving possible seepage holes when trees die and their roots decay; or by causing erosion of the dam around this growth should the dam overtop during heavy rains. This woody growth can also hinder inspection and provide habitat for burrowing animals. Therefore, we recommend that this type of growth be removed and a good grass cover be established on the dam. The tree debris should be removed.

Though it is not our policy to allow any trees to grow on a dam, it is recommended that all trees greater than six inches in diameter be left on the dam. Trees larger than six inches that are in poor shape or pose a threat to the structural integrity of the dam and need removal require the supervision of a registered professional engineer competent in the area of dam safety. Also, prior approval must be obtained from the Division of Energy, Mineral and Land Resources for the removal of trees greater than six inches in diameter.

Several bare areas created by tree removal were observed to have no active surface erosion. It is recommended that you continue to establish vegetation in these areas.

3. Wetness with active flow was observed along the downstream toe of the northern section of the main embankment adjacent to the coal pile. Although this flow is pumped to the active ash basin, it is recommended that plant personnel continue to monitor these areas periodically, and report any changes in the extent of wetness or flow to this office.
4. The concrete flume has separated from the outlet and undermining at the outlet area. The outlet area should be routinely inspected for additional signs of undermining of the discharge channel. Please notify this office of any sudden changes.

Additionally, the following general maintenance procedures are recommended:

1. Maintain a ground cover sufficient to restrain accelerated erosion on all earthen portions of the structure.
2. Periodically monitor the subject dam and appurtenant works with respect to elements affecting its safety. This is in light of the legal duties, obligations, and liabilities arising from the ownership and/or operation of a dam.

During this inspection we also investigated the potential for property damage and loss of life in the event that your dam fails. This investigation determined that failure of your dam could result in significant environmental damage to Lake Wylie and possible interruption of utility service. Therefore, we are listing your dam in the "High Hazard Potential" Note that all hazard classifications are subject to change due to downstream conditions.

Please be advised that the Division of Energy, Mineral and Land Resources must approve any excavation, modification, or major repair work to this dam before the work commences. Also, note that this dam may not be breached, meaning the dam may not be drained by cutting a notch in the dam, without prior engineered breach plans being submitted to and approved by the Division of Energy, Mineral and Land Resources.

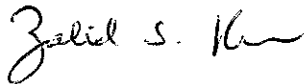
The "Dam Operation Maintenance and Inspection Manual" published by this Division provides inspection guidelines and recommended routine dam maintenance activities for the owner as well as emergency procedures in the event of possible dam failure. This document may be viewed online at <http://portal.ncdenr.org/web/lr/dams>.

Although every reasonable effort is made to determine the safety of each dam, our resources generally limit us to a surficial inspection of the dam and its appurtenant structures. This letter carries no implication regarding the internal stability of the dam. Dams, and especially their spillways and conduits, deteriorate with age. You are therefore advised to keep a close watch on the dam and notify us if you detect any changes, especially cracks, ground movements, or changes in seepage rate or color.

Please notify this office in writing if you wish to assert that you have no ownership or otherwise are not responsible for maintenance or repairs to the subject dam. If you have an emergency situation during non-office hours, you should notify 911 and the State Emergency Operations Center at 1 (800) 858-0368. They will notify the appropriate personnel in this Office of the situation.

Your cooperation and consideration in maintaining a safe dam is appreciated. Should you have any questions concerning our inspection, please contact me at (704) 663-1699.

Sincerely,



Zahid S. Khan, CPM, CPESC, CPSWQ
Regional Engineer
Land Quality Section

THE/cys

cc: Steven M. McEvoy, PE, State Dam Safety Engineer

DAM SAFETY INSPECTION REPORT

NAME ALLEN RETIRED ASH BASIN DAM	COUNTY GASTO	NO. 016	INSPECTED BY Elin Kormanik Broadway	DATE 2/19/2014
OWNER DUKE ENERGY	ADDRESS			PHONE

TYPE DAM <input type="checkbox"/> Concrete gravity <input type="checkbox"/> Concrete arch <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> Embankment <input type="checkbox"/> Concrete buttress <input type="checkbox"/> Stone masonry Ash Basin	TYPE INSPECTION <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Followup <input type="checkbox"/> Periodic <input type="checkbox"/> Other	SITE CONDITIONS <input type="checkbox"/> Dry <input type="checkbox"/> Snowcover <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Other
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HAZARD DESCRIPTION See file	HAZARD CLASS <input type="checkbox"/> Low (A) <input type="checkbox"/> Intermediate (B) <input checked="" type="checkbox"/> High (C)
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REMARKS Don Scruggs, Alex Papp, Alex Vook, Scott Nordgren in attendance. It rained this morning heavily	ACTION <input type="checkbox"/> None <input type="checkbox"/> Maintenance <input type="checkbox"/> Monitoring <input type="checkbox"/> Minor repair <input checked="" type="checkbox"/> Engineering	RECOMMENDATIONS <input checked="" type="checkbox"/> Inspection letter <input type="checkbox"/> Deficiency letter <input type="checkbox"/> RE notice <input type="checkbox"/> Engineering study <input type="checkbox"/> Inspection by RE <input type="checkbox"/> Inspection by DSE <input type="checkbox"/> Dam safety order <input type="checkbox"/> Enforcement <input checked="" type="checkbox"/> Periodic reinspection <input type="checkbox"/> Other reinspection
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AREA	PROBLEMS	COMMENTS
UPSTREAM SLOPE / FACE	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Displaced rip rap <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Cracks <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Undermining <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Wave erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Other <input type="checkbox"/> 10. Sparse rip rap	COVER: <input checked="" type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Other
TOP OF DAM	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Cracks <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Spalling <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Deteriorated joints <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Displaced joints <input type="checkbox"/> 5. Ruts <input type="checkbox"/> 15. Exposed reinforcement <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Other <input type="checkbox"/> 7. Depressions <input type="checkbox"/> 8. Uneven <input type="checkbox"/> 9. Misalignment <input type="checkbox"/> 10. Has overtopped	COVER: <input checked="" type="checkbox"/> Vegetation <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Other
DOWNSTREAM SLOPE / FACE	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Bolls <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Other <input type="checkbox"/> 10. Wetness	COVER: <input checked="" type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other No active erosion observed, Tree debris at toe, should be removed. Non-uniform, no visible signs of non-stability
TOE CONTACT	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Bolls <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Undermining <input type="checkbox"/> 10. Wetness <input type="checkbox"/> 20. Other	COVER: <input checked="" type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other Wetness at toe, appears to be from this morning's rain. Flowing clear water near coal pile, according to Alex Papp still pumped to active basin

AREA	PROBLEMS	COMMENTS
ADJUTMENT CONTACTS	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. Trees <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 7. Slides <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 10. Wetness <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 12. Boils <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 14. Holes <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 19. Undermining <input type="checkbox"/> 20. Other	COVER: <input checked="" type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other
PRINCIPAL SPILLWAY	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No trashguard <input type="checkbox"/> 3. Obstructed <input type="checkbox"/> 4. Plugged <input type="checkbox"/> 5. Rusted <input type="checkbox"/> 6. Damaged <input type="checkbox"/> 7. Gates leaking <input type="checkbox"/> 8. Joints leaking <input type="checkbox"/> 9. Cracks <input type="checkbox"/> 10. Joint deterioration <input type="checkbox"/> 11. Joint displacement <input type="checkbox"/> 12. Undermined <input type="checkbox"/> 13. Voids <input type="checkbox"/> 14. Erosion <input type="checkbox"/> 15. Holes <input type="checkbox"/> 16. Conduit collapsed <input type="checkbox"/> 17. Spalling <input type="checkbox"/> 18. Outlet undercutting <input type="checkbox"/> 19. Misalignment <input type="checkbox"/> 20. Other	TYPE/SIZE: N/A FORMER PSPWY STRUCTURE IS NO LONGER WITHIN IMPOUNDMENT AREA OF BASIN
EMERGENCY SPILLWAY	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No ES <input type="checkbox"/> 3. Same as PS <input type="checkbox"/> 4. Obstructed <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 6. Displaced rip rap <input type="checkbox"/> 7. Sparse rip rap <input type="checkbox"/> 8. Joints leaking <input type="checkbox"/> 9. Cracks <input type="checkbox"/> 10. Joint deterioration <input type="checkbox"/> 11. Joint displacement <input type="checkbox"/> 12. Undermining <input type="checkbox"/> 13. Voids <input type="checkbox"/> 14. Holes <input type="checkbox"/> 15. Exposed reinforcement <input type="checkbox"/> 16. Spalling <input type="checkbox"/> 17. Outlet erosion <input type="checkbox"/> 18. Misalignment <input type="checkbox"/> 19. Inadequate capacity <input type="checkbox"/> 20. Other	TYPE/SIZE: N/A
DRAINS / OTHER OUTLETS	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No bottom drain <input type="checkbox"/> 3. Bottom drain inoperable <input type="checkbox"/> 4. Subsurface drain dry <input type="checkbox"/> 5. Subsurface drain muddy flow <input type="checkbox"/> 6. Subsurface drain obstructed <input type="checkbox"/> 7. No animal guard <input type="checkbox"/> 8. Other	TYPE: 15-18" DIP adjacent to coal storage, flowing clear water, pumped back to active ash basin

SKETCHES/COMMENTS

12/17/2013 letter issued by Tracy Davis addressing compacted moisture content / modification to 11/30/2010 certificate of approval, Condition 3, operations plan

DAM SAFETY INSPECTION REPORT

NAME <i>Allen Retired Ash Basin Dam</i>		COUNTY <i>GASTO</i>	NO. <i>016</i>	INSPECTED BY <i>EPLIN, KORMANIK</i>	DATE <i>3/1/2014</i>
OWNER <i>See file</i>		ADDRESS			PHONE
TYPE DAM <input checked="" type="checkbox"/> Embankment <input type="checkbox"/> Concrete gravity <input type="checkbox"/> Concrete arch <input checked="" type="checkbox"/> Other <input type="checkbox"/> Concrete buttress <input type="checkbox"/> Stone masonry <i>Ash Basin</i>		TYPE INSPECTION <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Followup <input type="checkbox"/> Periodic <input type="checkbox"/> Other		SITE CONDITIONS <input type="checkbox"/> Dry <input type="checkbox"/> Snowcover <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Other	
HAZARD DESCRIPTION <i>See file</i>				HAZARD CLASS <input type="checkbox"/> Low (A) <input type="checkbox"/> Intermediate (B) <input checked="" type="checkbox"/> High (C)	
REMARKS <i>Follow-up Tim Russell, Bob Scruggs in attendance</i>			ACTION <input type="checkbox"/> None <input type="checkbox"/> Maintenance <input type="checkbox"/> Monitoring <input type="checkbox"/> Minor repair <input checked="" type="checkbox"/> Engineering RECOMMENDATIONS <input checked="" type="checkbox"/> Inspection letter <input type="checkbox"/> Deficiency letter <input type="checkbox"/> RE notice <input type="checkbox"/> Engineering study <input type="checkbox"/> Inspection by RE <input type="checkbox"/> Inspection by DSE <input type="checkbox"/> Dam safety order <input type="checkbox"/> Enforcement <input checked="" type="checkbox"/> Periodic reinspection <input type="checkbox"/> Other reinspection		

AREA	PROBLEMS	COMMENTS
UPSTREAM SLOPE / FACE	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Displaced rip rap <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Cracks <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Undermining <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Wave erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Other <input type="checkbox"/> 10. Sparse rip rap	COVER: <input type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Other <i>D.N.I.</i>
TOP OF DAM	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Cracks <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Spalling <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Deteriorated joints <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Displaced joints <input type="checkbox"/> 5. Ruts <input type="checkbox"/> 15. Exposed reinforcement <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Other <input type="checkbox"/> 7. Depressions <input type="checkbox"/> 8. Uneven <input type="checkbox"/> 9. Misalignment <input type="checkbox"/> 10. Has overtopped	COVER: <input type="checkbox"/> Vegetation <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Other <i>D.N.I.</i>
DOWNSTREAM SLOPE / FACE	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Bolls <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Other <input type="checkbox"/> 10. Wetness	COVER: <input checked="" type="checkbox"/> Vegetation <input checked="" type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other <i>5 horizontal drains observed in downstream slope (8" with 18" vertical drains - all CMP - perforated). Attempted to locate outfalls and could not.</i>
TOP CONTACT	<input type="checkbox"/> 1. None <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 2. Trees <input type="checkbox"/> 12. Bolls <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 14. Holes <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 7. Slides <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 19. Undermining <input type="checkbox"/> 10. Wetness <input type="checkbox"/> 20. Other	COVER: <input checked="" type="checkbox"/> Vegetation <input checked="" type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other

AREA	PROBLEMS	COMMENTS
ABUTMENT CONTACTS	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. Trees <input type="checkbox"/> 3. High bushes <input type="checkbox"/> 4. Burrows <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 6. Livestock damage <input type="checkbox"/> 7. Slides <input type="checkbox"/> 8. Depressions <input type="checkbox"/> 9. Bulges <input type="checkbox"/> 10. Wetness <input type="checkbox"/> 11. Seepage <input type="checkbox"/> 12. Boils <input type="checkbox"/> 13. Cracks <input type="checkbox"/> 14. Holes <input type="checkbox"/> 15. Spalling <input type="checkbox"/> 16. Displaced joints <input type="checkbox"/> 17. Deteriorated joints <input type="checkbox"/> 18. Exposed reinforcement <input type="checkbox"/> 19. Undermining <input type="checkbox"/> 20. Other	COVER: <input type="checkbox"/> Vegetation <input type="checkbox"/> Rip rap <input type="checkbox"/> Concrete <input type="checkbox"/> Other DNZ
PRINCIPAL BRILLWAY	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No trashguard <input type="checkbox"/> 3. Obstructed <input type="checkbox"/> 4. Plugged <input type="checkbox"/> 5. Rusted <input type="checkbox"/> 6. Damaged <input type="checkbox"/> 7. Gates leaking <input type="checkbox"/> 8. Joints leaking <input type="checkbox"/> 9. Cracks <input type="checkbox"/> 10. Joint deterioration <input type="checkbox"/> 11. Joint displacement <input type="checkbox"/> 12. Undermined <input type="checkbox"/> 13. Voids <input type="checkbox"/> 14. Erosion <input type="checkbox"/> 15. Holes <input type="checkbox"/> 16. Conduit collapsed <input type="checkbox"/> 17. Spalling <input type="checkbox"/> 18. Outlet undercutting <input type="checkbox"/> 19. Misalignment <input type="checkbox"/> 20. Other	TYPE/SIZE: RCP Riser/Barrel Clear flow, flume separated from outlet with undermining at outlet
EMERGENCY BRILLWAY	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No ES <input type="checkbox"/> 3. Same as PS <input type="checkbox"/> 4. Obstructed <input type="checkbox"/> 5. Erosion <input type="checkbox"/> 6. Displaced rip rap <input type="checkbox"/> 7. Sparse rip rap <input type="checkbox"/> 8. Joints leaking <input type="checkbox"/> 9. Cracks <input type="checkbox"/> 10. Joint deterioration <input type="checkbox"/> 11. Joint displacement <input type="checkbox"/> 12. Undermining <input type="checkbox"/> 13. Voids <input type="checkbox"/> 14. Holes <input type="checkbox"/> 15. Exposed reinforcement <input type="checkbox"/> 16. Spalling <input type="checkbox"/> 17. Outlet erosion <input type="checkbox"/> 18. Misalignment <input type="checkbox"/> 19. Inadequate capacity <input type="checkbox"/> 20. Other	TYPE/SIZE: DNI
DRAINS / OTHER OUTLETS	<input type="checkbox"/> 1. None <input type="checkbox"/> 2. No bottom drain <input type="checkbox"/> 3. Bottom drain inoperable <input type="checkbox"/> 4. Subsurface drain dry <input type="checkbox"/> 5. Subsurface drain muddy flow <input type="checkbox"/> 6. Subsurface drain obstructed <input type="checkbox"/> 7. No animal guard <input type="checkbox"/> 8. Other	TYPE: See comments in downstream slope section,
SKETCHES/COMMENTS		