|  |
| --- |
| **Culvert Hydraulic Report** |
| STRUCTURE NO. |       | INSP. DATE: |       |
| COUNTY: |       | SECTION: |       |  | TOWNSHIP: |       |  | RANGE: |       |
|  |  |  |  |  |  |  |  |  |  |  |
| 359A | TYPE OF CULVERT: | BOX | [ ]  | PIPE | [ ]  |  | 359B | NUMBER OF BARRELS |   |  |
| 359C | SPAN |    | ft |  | 359D | RISE |    | ft |  | 359E | FILL |    | ft (TOP OF CULVERT TO CL GRADE) Y N |
| 061 | CHANNEL and CHANNEL PROT. |   | (0-9) | 346 | STREAM BED DEGRADATION | [ ]  | [ ]  |  |
| 062 | OVERALL CULVERT CONDITION |   | (0-9) | 347 | NOTICEABLE CONTRACTION OF STREAM | [ ]  | [ ]  |  |
| 071 | WATERWAY ADEQUACY |   | (0-9) | 350 | STREAM SHIFTED FROM CENTER |  | [ ]  | [ ]  |  |
| 326 | EMBANKMENT EROSION |   | (0-9) | 353 | POTENTIAL DEBRIS UPSTREAM |  | [ ]  | [ ]  |  |
| 328 | FLOWLINE DROP AT INLET |   | ft | 355 | STRUCTURE ALIGNMENT WITH FLOW |  |   | (0-9) |  |
| 329 | FLOWLINE DROP AT OUTLET |   | ft | 358 | IS THERE A SCOUR PROBLEM |  | [ ]  | [ ]  |  |
| 330 | SILT IN BARREL |   | ft | 358C | SCOUR PLAN OF ACTION EFFECTIVE DATE |       |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |
| **113 SCOUR CRITICAL RATING** |  |
| [ ]  | 9 | FOUNDATIONS SAFELY ABOVE FLOODWATER | [ ]  | 4 | ACTION REQUIRED |  |
| [ ]  | 8 | STABLE, FOUNDATIONS RESIST SCOUR | [ ]  | 3 | UNSTABLE FOUNDATION |  |
| [ ]  | 7 | SCOUR PROBLEM MITIGATED | [ ]  | 2 | UNSTABLE, EXTENSIVE SCOUR |  |
| [ ]  | 5 | LOW RISK | [ ]  | 1 | FAILURE IMMINENT, CLOSED |  |
| JUSTIFICATION*:*       |  |
|  |  |
| **SOIL TYPE** |  |  |  |  |  |  |  |  |  |  | (PE Seal) |  |  |
| CHANNEL BANK: | [ ]  | SAND & GRAVEL | [ ]  | SANDY SILT | [ ]  | SILT | [ ]  | SILTY-CLAY | [ ]  | CLAY | [ ]  | SHALE | [ ]  | ROCK |
| CHANNEL BED: | [ ]  | SAND & GRAVEL | [ ]  | SANDY SILT | [ ]  | SILT | [ ]  | SILTY-CLAY | [ ]  | CLAY | [ ]  | SHALE | [ ]  | ROCK |

**CHANNEL EVOLUTION**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **STAGE** |  |  |  |  |  |  |  |  |  |  |
| [ ]  | PREMODIFIED | [ ]  | CONSTRUCTED | [ ]  | DEGRADATION | [ ]  | THRESHOLD | [ ]  | AGGRADATION | [ ]  | RESTABILIZATION |
| **CHARACTERISTICS** |  |  |  |  |  |  |  |  |  |  |
| [ ]  | HEAD-CUTTING | [ ]  | STEEP BANKS | [ ]  | BANK SEEPAGE | [ ]  | ALTERNATE BARS | [ ]  | MEANDERING | [ ]  | VEGETATED BANKS |
| BANK FAILURE DUE TO: | [ ]  | ROTATION | [ ]  | POPOUT | [ ]  | SLAB MOVEMENT | [ ]  | SLOUGHING | [ ]  | OTHER: |       |

**BANK BUFFER ZONE**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LEFT BANK: |       | ft (width) |  | [ ]  | TREE LINED | [ ]  | GRASSED | [ ]  | CULTIVATED | [ ]  | OTHER: |       |
| RIGHT BANK: |       | ft (width) |  | [ ]  | TREE LINED | [ ]  | GRASSED | [ ]  | CULTIVATED | [ ]  | OTHER: |       |

**STRUCTURAL HYDRAULIC ASSESSMENT**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HYDRAULIC STABILITY CATEGORY: | [ ]  | STABLE | [ ]  | LOW RISK | [ ]  | SCOUR SUSCEPTIBLE | [ ]  | SCOUR VULNERABLE | [ ]  | SCOUR CRITICAL |

**CULVERT** **INFORMATION**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| INLET ELEVATION : |       | ft |  | OUTLET ELEVATION: |       | ft | ROAD GRADE ELEV.: |       | ft |
| Q100 BASE FLOOD: |       | cfs |  | HW DEPTH (US END): |       | ft | WATERWAY AREA: |       | ft2 |
| Q100 BRIDGE BASE FLOOD: |       | cfs |  | OVERTOPPING FLOOD: |       | cfs | OVERTOPPING FREQ.: |       | yr |
| FLOWLINE ELEV.: |       | ft |  | HIGH BANK ELEV.: |       | ft | LOW ROAD ELEV.: |       | ft |
| CHANNEL BOTTOM WIDTH: |       | ft |  | INLET CREST ELEV.: |       | ft | OUTLET APRON ELEV.: |       | ft |
| STREAM: |       |  |  | DRAINAGE AREA: |       | mi2 |
|  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| WRITTEN BY:       | QC BY:       | QA BY:       |
| DATE: |       | DATE: |       | DATE: |       |