ChecklistGuro

Drainage System Efficiency Check Checklist

Visual Inspection & General Condition

Initial assessment of the drainage system's physical state and obvious issues.

Date of Inspection (YYYY-MM-DD)

Enter a number...

Inspector Name

Write something...

Overall Impression of System Condition

Write something...

Visible Signs of Damage (Select all that apply)

- [ ] Cracks in Channels
- [ ] Collapsed Sections
- [ ] Erosion Around Outlets
- [ ] Leaking Joints
- [ ] Broken Pipes
- [ ] None Observed

Estimated Length of Drainage System (meters/feet)

Enter a number...

Drainage System Type (Select all that apply)

- [ ] Surface Drainage
- [ ] Subsurface Drainage (Tile)
- [ ] Combination
- [ ] Other

Notes on immediate visual concerns or potential problem areas

Write something...

Upload photos of system, including problem areas

Upload File

Surface Water Flow & Ponding

Evaluating how surface water behaves after rainfall events.

Observe ponding duration after a typical rainfall event (e.g., 0.5 inch).

- [ ] < 30 minutes
- [ ] 30 minutes - 1 hour
- [ ] 1 - 2 hours
- [ ] More than 2 hours

Maximum depth of ponding observed (in inches)

Enter a number...

Describe the location(s) of observed ponding. Be specific (e.g., low spots in field, near tile outlet).

Write something...

Is ponding excessive, causing potential crop stress or damage?

- [ ] No
- [ ] Yes, slight
- [ ] Yes, moderate
- [ ] Yes, severe

What factors contribute to observed ponding (select all that apply)?

- [ ] Clogged Drain
- [ ] Flat Terrain
- [ ] Soil Type (Clayey)
- [ ] Heavy Rainfall
- [ ] Poor Design
- [ ] Other (Specify in LONG_TEXT)

If 'Other' selected in previous question, please describe.

Write something...

Drainage Outlet Functionality

Assessing the efficiency of outlets, including culverts, ditches, and pipes.

Outlet Type?

- [ ] Culvert
- [ ] Open Ditch
- [ ] Underground Pipe
- [ ] Surface Drain
- [ ] Other

Outlet Flow Rate (L/s or GPM)

Enter a number...

Outlet Blockage?

- [ ] No
- [ ] Minor
- [ ] Moderate
- [ ] Severe

Describe any observed outlet issues:

Write something...

Water Level at Outlet (m or ft)

Enter a number...

Evidence of Backflow?

- [ ] Yes
- [ ] No
- [ ] Uncertain

Attach Photo of Outlet

Upload File

Channel & Pipe Condition

Detailed examination of the integrity and cleanliness of channels and pipes.

Pipe Diameter (inches)

Enter a number...

Pipe Material

- [ ] PVC
- [ ] Concrete
- [ ] Corrugated Metal
- [ ] HDPE
- [ ] Other

Channel Slope (percent)

Enter a number...

Pipe Condition - Visible Damage?

- [ ] No
- [ ] Minor (Surface cracks, minor deformation)
- [ ] Moderate (Significant cracks, partial collapse)
- [ ] Severe (Complete collapse)

Describe any observed pipe or channel degradation (rust, cracks, settlement, etc.)

Write something...

Estimate Sediment Build-up in Channel (inches)

Enter a number...

Upload Photo of Channel/Pipe Condition

Upload File

Sediment & Obstruction Assessment

Identifying and quantifying sediment buildup and any blockages within the drainage system.

Average Sediment Depth (cm)

Enter a number...

Types of Debris Observed

- [ ] Leaves
- [ ] Sticks/Branches
- [ ] Soil/Mud
- [ ] Organic Matter (e.g., crop residue)
- [ ] Trash/Plastic
- [ ] Other (Specify in LONG_TEXT)

Description of 'Other' Debris (if selected)

Write something...

Estimated Percentage of Drainage System Blocked by Sediment/Debris (%)

Enter a number...

Severity of Obstruction

- [ ] Minor (Less than 10% reduction in flow)
- [ ] Moderate (10-30% reduction in flow)
- [ ] Severe (Greater than 30% reduction in flow)

Photo of Sediment/Debris Buildup

Upload File

Detailed Description of Obstruction Location and Nature

Write something...

Vegetation Management

Reviewing vegetation growth within and around the drainage system and its impact on efficiency.

Dominant Vegetation Types Observed (Check all that apply)

- [ ] Grasses
- [ ] Weeds (Identify Species)
- [ ] Shrubs
- [ ] Trees
- [ ] Algae
- [ ] Other (Specify)

Detailed Description of Vegetation Presence & Location

Write something...

Estimated Vegetation Coverage (%)

Enter a number...

Vegetation Impact on Drainage (Choose One)

- [ ] No Observable Impact
- [ ] Minor Obstruction
- [ ] Moderate Obstruction
- [ ] Severe Obstruction

Describe Specific Areas of Concern Related to Vegetation

Write something...

Photos of Vegetation and Potential Obstructions

Upload File

Last Vegetation Management Date

Enter date...

Erosion Control Measures

Checking the effectiveness of erosion control structures (riprap, check dams, etc.).

Riprap Condition

- [ ] Excellent - Stable and Intact
- [ ] Good - Minor displacement, still functional
- [ ] Fair - Noticeable displacement, some loss of material
- [ ] Poor - Significant loss, ineffective protection

Check Dam Height (feet)

Enter a number...

Terrace Stability (if applicable)

- [ ] Stable
- [ ] Minor erosion
- [ ] Moderate erosion
- [ ] Severe erosion

Describe Any Erosion Concerns

Write something...

Vegetation Cover Near Erosion Controls

- [ ] Excellent - Dense and Well-Established
- [ ] Good - Adequate coverage
- [ ] Fair - Sparse coverage, some bare spots
- [ ] Poor - Minimal coverage, significant erosion risk

Distance to Nearest Waterbody (feet)

Enter a number...

Attach Photos of Erosion Controls

Upload File

Water Quality & Runoff Analysis (Optional)

Collecting samples and analyzing runoff to evaluate water quality and nutrient loss (requires specific equipment and expertise).

Describe any unusual observations regarding runoff color, odor, or appearance.

Write something...

pH of runoff sample (if collected).

Enter a number...

Turbidity of runoff sample (NTU - Nephelometric Turbidity Units, if collected).

Enter a number...

Soil erosion observed in runoff? (Visual estimation)

- [ ] None
- [ ] Slight
- [ ] Moderate
- [ ] Severe

Potential pollutants detected in runoff (check all that apply):

- [ ] Fertilizers
- [ ] Pesticides
- [ ] Sediment
- [ ] Organic Matter
- [ ] Other (Specify in LONG_TEXT)

Attach any photos/videos of runoff or surrounding area.

Upload File

Date of runoff sample collection

Enter date...