Generated file by QChecklists
https://quollnet.com

Set up temporary drainage swales and sumps – Field Checklist

Set up temporary drainage swales and sumps with an interactive checklist, commentable and export as PDF/Excel, verifying sizing, slopes, outfalls, and siltation.

Project:	
Date:	
Filled by:	

Planning and Design Verification	
1	Confirm the scope covers only temporary swales, sumps, pumps, and outfalls; exclude permanent storm systems. Record scope confirmation with superintendent sign-off and photo of the latest temporary drainage plan.
2	Verify the temporary drainage plan is approved per approved project specifications and authority requirements. Attach approval letter/email and drawing register; acceptance: all drawings latest revision, approvals dated and signed.
3	Check design inflow (L/s) and storage volumes for each swale/sump against catchment areas. Attach calculation sheet; acceptance: capacity ≥ design flow with ≥20% freeboard, reviewer initials and date.

Survey and Layout	
4	Stake swale centerlines and sump locations using GNSS/total station. Acceptance: coordinates recorded within ±0.05 m of design; upload CSV of points and overview photos with flags visible.
5	Set invert level benchmarks and grade stakes for swale slopes using a laser level. Acceptance: target slope 0.5–2.0% unless noted; measured slope within ±0.2% of target; record start/end inverts (m).
6	Mark outfall locations, apron extents, and geotextile limits with paint and pins. Acceptance: boundaries match drawings; upload marked-up photo and chainage references.

Swales Excavation and Shaping	
7	Excavate swales to design trapezoidal section using excavator and grade control. Acceptance: bottom width and depth within ±50 mm; side slopes uniform; photo with measuring staff and daily checklist signature.
8	Trim and smooth invert to continuous fall using grading bucket. Acceptance: no ponding; straightedge check shows no depressions >10 mm over 10 m; upload level shots at 10 m intervals.
9	Lightly compact side slopes with walk-behind compactor to reduce raveling. Acceptance: firm surface with no sloughing under boot test; photo evidence and compaction pass noted.
10	Install erosion control matting on side slopes steeper than 33% (≈1V:3H). Acceptance: overlaps ≥150 mm, staples ≥2/m², full contact with soil; photos and roll IDs recorded.

Sumps and Pumping	
11	Excavate sump pits at low points to design plan dimensions. Acceptance: measured L×W×D within ±50 mm; calculated volume within –5%/+10% of design; freeboard ≥300 mm; upload measurements and photos.
12	Place nonwoven geotextile underlayment in sump and beneath riprap to prevent subgrade scour. Acceptance: overlaps ≥300 mm, no tears; photo and product tag/roll number recorded.
13	Install perimeter sediment barrier (coir log or silt fence) around sump. Acceptance: continuous alignment, fabric keyed-in 150 mm, posts ≤2.0 m spacing; photo and installer initials.
14	Set electric/diesel pumps with screened intake and standby unit. Acceptance: Qpump ≥ design inflow with 100% redundancy; 10-minute test run, record flow (L/s), head (m), voltage/amps; photo of setup.
15	Fit discharge hoses with sediment bag or inline filtration unit before outfall. Acceptance: secure couplings, no leaks, bag intact and accessible; photo pre/post test; record filter model/serial.

Outfalls and Siltation Protection	
16	Construct rock riprap apron at discharge over geotextile. Acceptance: thickness and stone size per design; full coverage without gaps; apron length/width within ±100 mm; upload close-up and wide-angle photos.
17	Install check dams in swales where grades require flow attenuation. Acceptance: crest at least 150 mm below banks; spacing ensures toe-to-toe contact; photo and chainage of each dam recorded.
18	Install level spreader or diffuser at outfall to convert to sheet flow. Acceptance: uniform dispersion with no visible rills after test discharge; photo and short video attached.
19	Install silt fence/coir logs as final control downstream of apron. Acceptance: posts embedded ≥500 mm, fabric buried 150 mm, tight to ground; photo and fence length measured.
20	Provide stabilized crossing where haul routes intersect swales using 150 mm crushed rock over geotextile. Acceptance: no rutting >50 mm; no sediment tracking beyond 10 m; photo and truck pass count logged.

Monitoring and Handover	
21	Record baseline turbidity upstream and at discharge using a calibrated meter. Acceptance: meter calibration log attached; during pump-out, discharge turbidity within project limits; values (NTU) logged with timestamp.
22	Complete as-built survey of swale inverts, sump bottoms, and outfall elevations. Acceptance: levels within ±10 mm of design; redline drawing exported and signed by surveyor.
23	Set inspection schedule: daily visual checks and after rainfall >10 mm/24 h. Acceptance: inspection log with photos, defects/actions recorded, responsible person and due dates assigned.
24	Compile handover pack: approvals, calculations, surveys, pump tests, turbidity logs, and photos. Acceptance: digital signatures from superintendent and environmental lead; export PDF/Excel with QR code.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Set up temporary drainage swales and sumps is the focus of this practical, field-tested checklist. It guides site teams through temporary stormwater swales, construction sumps, and short-term dewatering arrangements, ensuring correct sizing, slope, outfall stabilization, and protection against siltation. The scope deliberately excludes tie-ins or commissioning of permanent storm systems; all steps are for temporary works that protect excavations, haul routes, and stockpiles during construction. By verifying capacities against design flows, setting controlled gradients, and stabilizing outlets with geotextile and rock, you reduce scour, sediment-laden discharges, and unplanned flooding. You'll capture evidence with photos, turbidity readings, as-built levels, and approvals per approved project specifications and authority requirements. The result is safer, compliant, and maintainable temporary drainage that performs through rain events and phased works. Use this interactive checklist on any device: tick items, leave comments, attach photos and test data, and export to PDF/Excel with a secure QR for traceability.	1. Preparation: gather laser level, total station/GNSS, tape and staff, turbidity meter, pumps and hoses, geotextile, riprap, sediment bags, PPE, and the approved temporary drainage plan with design flows and levels. 2. Site readiness: confirm safe access, locate underground services, define exclusion zones around excavations, and brief crews on temporary works limits and emergency pump-down procedures. 3. Start interactive mode: open the checklist on your device, create a project, assign roles (superintendent, surveyor, environmental lead), and enable comments and photo uploads. 4. Execute and record: tick items as built, attach calculations, level logs, photos, and turbidity readings; note variances and approvals per approved project specifications and authority requirements. 5. Export and share: generate PDF/Excel with embedded photos and a QR code for authentication; distribute to stakeholders and store in the project document control system. 6. Sign-off: capture digital signatures from the superintendent and environmental lead; archive the signed export and schedule follow-up inspections and rain-event checks.