

Standard Operating Procedure (SOP)

Title	Import, Dewatering and Storage of Digested Sludge and Digested Cake
Site	All Severn Trent Sites

Purpose	<ul style="list-style-type: none"> To define procedure for the reception, dewatering and storage of imported digested liquid sludge at Severn Trent receiving sites. To ensure that when sites are experiencing issues with digested liquid sludge, the procedure ensures compliance with BAS To ensure the data for digested sludge is properly recorded.
Who	<ul style="list-style-type: none"> BR Process Optimisation team Site Operators & Works Managers in Bioresources Biosolids Team

Must Have (H&S, Quality, Quantity, Environment, Training, Resources)

- Knowledge of understanding of BAS / HACCP.
- Knowledge of the HACCP plans for respective sites.
- Suitable competency for role (e.g. Tanker Driver, Operations Manager, etc)

Remember – ‘Stop, Think, Take 20’

Summary Must Do’s

- all imported materials are managed in accordance with:
 - the Biosolids Assurance Scheme (BAS),
 - Sludge (Use in Agriculture) Regulations (SUiAR),
 - site-specific HACCP plans, and
 - Environmental Permit requirements (including IED permits);
- risks to compliance, odour, environment and product quality are controlled.
- storage arrangements, storage timescales and waste handling controls are clearly defined.
- Contact Line manager with questions

Document Control & Governance:

Document Owner Name	Helen Black		
Document Owner Role	Principal Biosolids Technician		
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Waterpedia Reference	<i>To be entered by Waterpedia Team</i>		
Version	Date Reviewed	Summary of Changes	Reviewed by
1.0	12/02/2026		

The only valid version of this Standard Operating Procedure (SOP) is the electronic version held in Waterpedia.

If printed, it is uncontrolled.

Ensure the printed version matches the Revision History details in Waterpedia.

If not, ‘DO NOT USE’ and contact your line manager for the new version

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All ST sites are part of the Biosolids Assurance Scheme and must follow their own HACCP plans. Satellite sites under the BAS scheme should be imported into sites that can accept digested sludge under their HACCP plan. In the event that sites experience issues where they cannot process their digested sludges, sludges can be exported off site to a receiving site. The receiving site HACCP plan detail if a site can accept imports and where in the process they are accepted.

Only compliant digested liquid sludge can be exported via road tanker coordinated by interworks team.

Imports of Digested Sludge

Pre acceptance / need

Confirm that the incoming material:

- Meets the receiving works acceptance criteria.
- Complies with regulatory and permit conditions.
- Confirm delivery schedule and quantities.
- Verify that sufficient storage and/or dewatering capacity is available.

Collection:

- A job is raised by the Sludge Planning Office (SPO) or Networks Tanker Hub and assigned to a ST driver (via tablet) or contractor (e-mail).
- Digested liquid sludge may only be transported by suitable vehicles
 - *(contact Interworks tankering Team if more information is required)*
- Loading of digested liquid sludge is performed via the dedicated Unitspark loggers. The logger system captures data related to each collection:
 - Collection time, date, volume, average dry solids, vehicle & destination

Unloading

- Arrival at the designated discharge point at the receiving site.
- Confirm the correct receiving tank
- Connect hoses and fittings securely. Verify
 - Valves are in the correct position.
 - Receiving tank level is adequate.
- Supervise unloading at all times to monitor for:
 - Leaks
 - Spills
 - Foam generation
- After unloading:
 - Flush hoses if required, close discharge valves and disconnect safely

Sampling

Sampling is performed in accordance with the annual sampling plan and ad-hoc sampling requests (if required). Ad-hoc samples may be requested by BR Process Team, BR Ops Team, BR Biosolids Team for monitoring purposes or operational reasons.

Sampling is performed in line with individual site HACCP Plans to ensure compliance with the Biosolids Assurance Scheme (BAS). Please refer to the individual site HACCP plan on Waterpedia or contact BR Process or BR Biosolids teams for more information.

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Dewatering of digested sludge

Pre-Start Checks

Confirm: (starts in auto)

- Dewatering process (Centrifuge) is available and operational.
- Polymer system (if applicable) is ready.
- Sludge feed pumps and pipelines are operational.

Inspect:

- Guards
- Emergency stops
- Site standards in the area

Start-Up, dewatering process (starts in auto)

- Start systems (wash water, air, lubrication).
- Start polymer preparation and dosing system (if used).
- Start the centrifuge in accordance with manufacturer instructions.
- Gradually introduce digested sludge feed.

Adjust, if needed, operating parameters to achieve:

- Stable operation, target cake %, acceptable centrate, suspended solids, ammonia
- Continuously monitor- sludge feed rate, Polymer dosage, alarms, cake appearance and consistency

Once dewatered, cake will fall from conveyor into day pad storage area. It will then be transferred to a designated storage bay on the cake pad, transferred to another ST site for storage or transported to field sites.

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Non-Compliance

Should any non-conformance or non-compliance be noted or suspected, this must be reported to the BR Process Team and BR Operations Manager as soon as possible.

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The Digested liquid sludge or Biosolids will be identified and quarantined. An action plan specific to the situation will then be agreed between the BR Process Team BR Operations team and BR Biosolids team to ensure corrective action for the cause of the non-compliance and suitable mitigations for the quarantined material – this may include additional testing, treatment or other suitable actions.

Storage of Digested liquid sludge - site dependant

Store digested sludge only in designated tanks

Maintain:

- Minimum and maximum operating levels.
- Adequate mixing where required to prevent settling.

Monitor:

- Odour
- Foam formation
- Visual inspection of tanks
 - Leaks
 - Overflow risks
 - Abnormal conditions
 - *(Formal inspection of tanks is covered by other ST processes)*

Storage of Digested Cake

Storage Areas

- Store digested cake only on the sites designated cake pad, that will have numbered bays

Handling and Placement - store cake to maintain:

- Storage within designated bays
- Regular monitoring
- Ensure cake is contained with the cake pad area

Environmental Controls

- Ensure rainfall / effluent is contained and directed to the appropriate drainage system.
- Regular monitoring to minimise nuisance risk

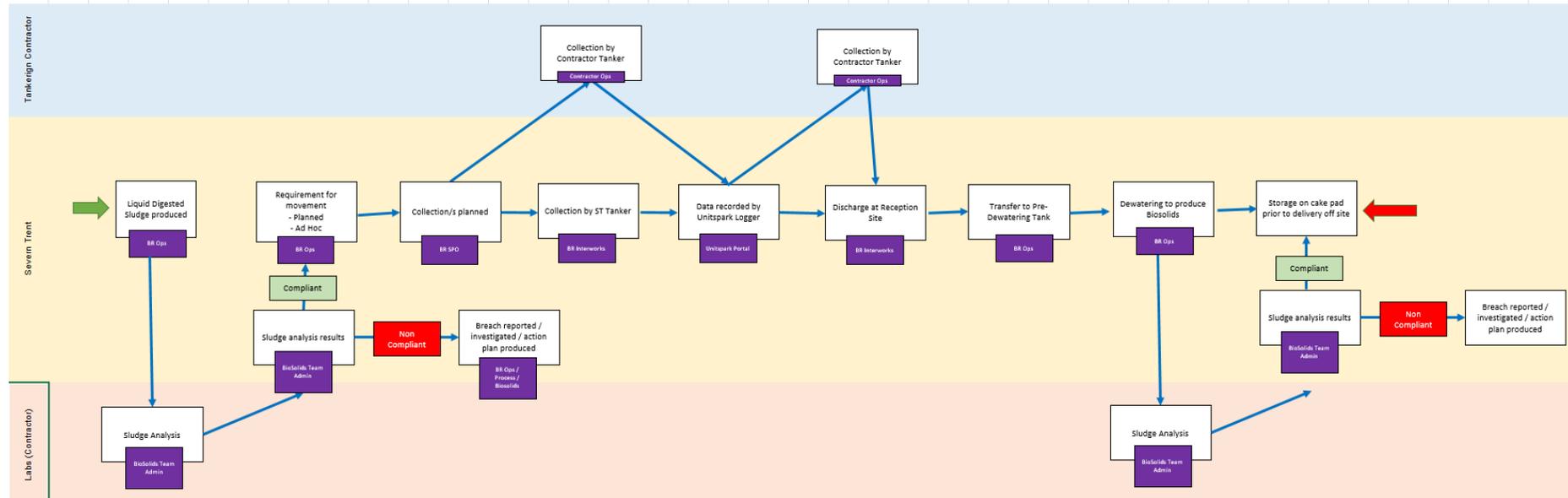
Inspection and monitoring

Regular inspection of cake storage areas for

- Asset condition
- Stock levels & condition
- Drainage
- Manage storage records, detailing tonnages , availability and sampling data

Remove and clean spilled material immediately.

Liquid Digested Sludge Movements



[Flow Charts\Digested Sludge Movements Flow Chart.xlsx](#)