

RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

OVERVIEW AND SCRUTINY COMMITTEE – 26TH FEBRUARY 2024

MANAGEMENT OF TIP SAFETY IN RCTCBC

**REPORT OF THE DIRECTOR HIGHWAYS, STREETCARE AND
TRANSPORTATION SERVICES**

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1. PURPOSE OF THE REPORT

- 1.1 The purpose of this report is to provide Members of the Overview and Scrutiny Committee with an update on the work that the Tip Safety Team have undertaken in the last year with respect to the management, monitoring and oversight of disused coal tips within the County Borough.

2.0 RECOMMENDATIONS

- 2.1 To scrutinise the work of the RCTCBC Tip Safety Team and the approach of prioritisation of resources.

3.0 REASONS FOR RECOMMENDATIONS

- 3.1 To be aware of the work undertaken by the Tip Safety team
- 3.2 To consider the different approaches for Tip Safety with RCTCBC under the Mines and Quarries (Tips) Act 1969, as landowner and with ongoing risk management and prioritisation of resources.

4. BACKGROUND

- 4.1 Approval to establish a Tip Safety Team was given by Cabinet on 27th January 2022 – Report [Tip Safety Management Resources](#). The team was established to manage risks of tip instability within RCT by:
- Managing the Council's responsibilities under the Mines and Quarries (Tips) Act 1969,
 - Managing the Council's safety responsibilities as a land-owner of significant numbers of coal spoil tips across RCT.

- 4.2 There has been successful appointment to 4 of the 6 established posts with the remaining two posts currently covered by a secondment from a third party consultant and agency engineer.
Finding suitable candidates for the vacant posts is proving difficult due to the specialised nature of the work and third-party consultants offering higher salaries.
- 4.3 Whilst the proposals to change the legislative framework are underway by the Welsh Government (RCT response to WG White Paper debated by Overview and Scrutiny Committee July 20th 2022 [Coal Tip Safety \(Wales\) White Paper](#)) this report outlines the ongoing work being undertaken to manage and monitor tips until such time these proposals are enacted.
- 4.4 RCT have successfully applied for grant funding from Welsh Government for Coal Tip Safety work and this grant funding covers the costs for the work outlined in this report.
- 4.5 **DATA** - The establishment of the WG Tips Task Force and the desire to streamline and regulate all tips data across Wales, has required a series of lengthy exercises to align data held by individual Local Authorities and other public bodies. In general, this data includes information as ownership, boundary and category. This has been an iterative process which is still being undertaken and can result in anomalies (such as differences in category – due to non-standardised methods of assessment by different bodies). RCT have been heavily involved in this process and continues to be so. The WG recently published (on DataMap Wales - [Category C and D Disused Coal Tips in Wales | DataMapWales \(gov.wales\)](#)) the locations of all the C and D category tips. Members of the RCT Tips Team together with representatives of WG attended a public meeting on November 30th 2023 at the launch of this information (in Llys Cadwyn, Pontypridd) – however there was limited public attendance. WG also held online sessions members of the public could register to attend. The Tips Team continue to resolve data anomalies and are in the process of aligning RCT held data with that of the WG and Tips Task Force. Each tip has a unique reference number, in RCT a number is prefixed by CV (Cynon Valley), RH (Rhondda) or TE (Taff Ely) depending on location. WG have established unique number references for all tips across Wales.
- 4.6 **INSPECTIONS** - In 2021, a Risk matrix was established by the RCT Tip Safety team to standardize the Categorisation of Tips and the resultant category informs the subsequent inspection interval for the tip. The category definitions and inspection intervals remain as per the RCT Policy and Procedure for Management of Disused Colliery and Quarry Spoil Tips 2012 – the intervals are as follows:

- D1 - monthly,
- D3 - 3 monthly,
- C - 6 monthly,
- B - annually,
- A2- 2 yearly,
- A4- 4 yearly.

Inspections are scheduled, undertaken, written up and submitted for approval by the overseeing Tip Safety Officer. Most inspections are undertaken by the Tip Safety team with some specific higher category tips undertaken by the Council's Joint Venture Consultants, Redstart. Any concerns or defects noted on the inspections are then transferred to a Tips defect sheet. Defects are categorized using a RAG system:

Black - Emergency action – Immediate notification

Red - Short term maintenance / remediation required - to be actioned as soon as reasonably practicable

Amber – Medium term maintenance / remediation required but with risk mitigation such as site visits, monitoring etc

Green – Long term maintenance / remediation required - Currently low risk.

These defects are then further prioritized based on the tip category. Higher priority is given to issues such as drainage defects or notable structural issues which may worsen or have an impact on tip stability.

- 4.7 On average 80-90 tips inspections are undertaken each quarter. Between April to December 2023, 256 planned tip inspections have been completed, this figure does include some quarry tips.
- 4.8 In addition to the planned inspections, ad hoc severe weather inspections are undertaken after sustained periods of heavy rainfall or exceptional rainfall events. An inspection undertaken in January 2024 on a privately owned tip CV040 which is a kilometre north east of Abernant, resulted in notice being served under Section 14 of the Mines and Quarries (Tips) Act 1969 on a commercial owner of a tip to rectify scour damage from a pond. The risk was to a public right of way below the pond. The work to mitigate the immediate risk has recently been undertaken.
- 4.9 **MAINTENANCE** - With Coal Tip Safety Grant funding the Council has been able to put in place a programme of work on tips including maintenance – minor and major maintenance, studies and investigations. Please see the list in Appendix 1 outlining the references of the tips and description of works covered for the Coal Tip Safety grant application for 2023/24.

- 4.10 For minor maintenance works, this is identified from the inspection reports and in 2023/24 where we have worked with Highways Streetcare to undertake the works. Once completed, the maintenance works are inspected on site and signed off by a member of the Tip Safety team. Due to the size and nature of many of the tips and the amount of ageing drainage infrastructure present on many, it is impossible and impractical to undertake all maintenance work immediately. As a result, there is a prioritised system in place to address the work that if left unmitigated could contribute towards increased risks.
- 4.11 Typical maintenance can comprise of vegetation clearance, clearing out and repairing drainage channels, repairing pipes and culverts, reinstating drains, scour infill and repair.
- 4.12 In addition to the minor maintenance work, there has been ongoing specific repairs of a larger nature undertaken or planned to the various tips concerned. This work typically requires more surveys, detailed design and consents such as Ordinary Watercourse Consent. Examples of work are at RH03 Wattstown National Tip, where the mid access track has been restored to ensure access in all weathers and also permanent overflow drainage has been replaced. Future works required on the tip are to restore the mid berm drainage and prevent run off from permeating into the body of the tip. Ecological surveys will be renewed in February 2024 and subject to funding the work will be undertaken in Summer 2024.
- 4.13 Design and clearance work is currently ongoing as part of the preparations for remediation of the unregistered privately owned RH77 Graig Ddu Dinas tip. The toe of the tip is showing signs of movement and causing disruption to Graig Ddu Road and a localised slip onto Vicarage Road in Penygraig. Since 2020, the Council have commissioned site investigation and analysis of the tip. There is a monitoring system installed that provides data on rainfall, waterflows, ground water levels and ground movement. During Winter 2022/23 the movement was increasing such that temporary overland drainage was installed and to date it is mitigating the risk of further movement during heavy rainfall. The Council have been undertaking clearance work in recent weeks and the appointed consultants are meeting with the regulatory consenting teams to consider the major constraints to permanently improving drainage on the site within the current consenting framework. RCT will apply for grant funding for the work to remediate the “active” part of this tip and subject to a successful bid, works could commence in 2025.
- 4.14 Restoration of the scoured toe of tip CV128 at Penrhiwceiber if the proposed funding strategy is agreed within the current grant

application. The work would armour the toe of the tip along its embankment with the River Cynon.

- 4.15 Major work at the site of the Tylorstown landslip is progressing. Since the landslip from Upper Llanwonno Tip in February 2020 (Storm Dennis), the Council has implemented a four-phase remediation plan for the site. Phase One included emergency clearance work in the weeks that followed, Phases Two and Three which was removal of the slipped material from the valley floor and reinstatement of the river channel were substantially completed in June 2021, followed by additional work in autumn 2021 to stabilise the slope. Permanent works to the Phase 2 and 3 Receptor Sites A1, A2 and B will be progressed this year, planning consent has been obtained for the work to Sites A2 (planning reference 22/1477/08) and B (planning reference 22/1476/08).

Phase 4, the major phase of the remediation gained planning approval (planning reference 22/0600/08) in October 2022 and works commenced on site in April 2023. Up to 150,000 cubic metres of spoil material remaining on the hillside has now been relocated to the new adjacent receptor site. Progress to install significant drainage infrastructure has also continued – with more than 1,500-metres of surface water drainage pipe network installed to date. The wet weather in recent months has been challenging in terms of completing the work – but it has provided an opportunity to observe the changes to water movement and springs, as they develop to the hillside’s new profile.

As part of the Phase 4 works the Council is working to progress the longer-term land management plan for the hillside, including ways to prevent access by off-road vehicles and to create opportunities for biodiversity in the mosaic of habitats that will have been created.

- 4.16 **STUDIES** - The outcome of the WG’s proposed legislative change will formalise how tips are to be managed in the longer term and where responsibility will lie for tips under different ownership. In the interim, the Tip Safety team are proactively taking forward studies and information gathering on tips on a prioritised basis to inform decisions on these tips in the future and to consider options to maintain, monitor or remediate. An example of a recent desk study has been on the privately owned tip RH72 Ynyshir. The outcome has been to review the boreholes on the tip and with permission of the owner, RCT officers are monitoring ground water levels so these can be reviewed against historical data and stability analysis.
- 4.17 **MONITORING** - Examples of monitoring of tips in the longer term is the current system in operation on TE003 Lower Cilfynydd Tip since major works were completed there to drain the strata below the tip. There are boreholes at several locations on the tip and ground water levels are

monitored periodically. The data will be reviewed next in spring 2024. There are several systems in place on RH03 Wattstown National Tip, including tiltmeters, flow meters and a camera at a critical culvert inlet. Currently, Joint Venture consultant Redstart reviews and provides quarterly monitoring reports on RH03 data and interim updates as required due to specific results.

- 4.18 Challenges continue with the management of tips to ensure the ongoing safety within RCTCBC. Many major tip reclamation and remediation schemes were undertaken on tips from the 1970's onwards. Designed and installed infrastructure is now reaching the end of its design and material life which is presenting a new set of challenges to the structural integrity of the tips. Although the drainage infrastructure on tips is still currently functioning, it may not have sufficient capacity to comply with current drainage standards and the effects of climate change.
- 4.19 Establishing the Tip Safety Team has focussed monitoring, maintenance and management of tips within one team and established processes for tips dependant on the ownership and liability. This enables a risk prioritisation approach for resources, funding and programme.

5 EQUALITY AND DIVERSITY IMPLICATIONS / SOCIO-ECONOMIC DUTY

- 5.1 There are no equality and diversity implications.

6 WELSH LANGUAGE IMPLICATIONS

- 6.1 There are no Welsh Language implications.

7 FINANCIAL IMPLICATION(S)

- 7.1 The cost of the Tip Safety Team is currently covered by Welsh Government Coal Tip Safety Funding.

Since 2020 the Council have claimed and expended the following on Tip Safety:

- 2020/21 £3,571,864
- 2021/22 £2,945,491
- 2022/23 - £2,284,502.

- 7.2 In 2023/24 the Council was successful in obtaining £11,554,375 of Coal Tip Safety grant funding with the claim window until March 2025. A claim has been submitted for £6,091,721,27 to date with £4,874,343 of that cost attributed to Tylorstown landslip remediation. The Council will submit an additional application for funding for 2024/25 when the funding application window opens.
- 7.3 The Tip inspection regime currently costs approximately £250,000 per financial year.
- 7.4 Minor maintenance spend is currently in the region of £0.75million per year over all the tips.
- 7.5 Major maintenance can be in the region of £100k - £1million+ per tip, dependant upon the requirement of the remediation works.
- 7.6 Remediation schemes are multi million pound projects. The overall cost of Tylorstown Landslip remediation is currently forecasted to be just under £15million, this cost is reduced as the colliery spoil material is contained within the overall site / location. These costs would rise significantly if the material had to leave the site and would have a significant impact on the carbon footprint whilst also involving significant lorry movements along the Council's highway network.
- 7.7 Grant funding for RH077 will require discussion with WG as tender award and major spend will be over two consecutive financial years.

8 LEGAL IMPLICATIONS OR LEGISLATION CONSIDERED

- 8.1 Mines and Quarries (Tips) Act 1969

9 CONSULTATION / INVOLVEMENT

- 9.1 There is no consultation with respect to this paper. Consultation may be required on each respective tip should there be major works requiring planning approval.

10 LINKS TO THE CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT.

- 10.1 A Resilient Wales - Management and maintenance of tips helps to reduce any risk posed by them to infrastructure, biodiversity and the public. The tips will provide a biodiverse natural environment with healthy functioning ecosystems with the ability to deal with climate change.
- 10.2 A Wales of Cohesive Communities - Monitoring and inspection of tips allows those societies living in close proximity to tips to have

confidence and peace of mind that risks are being managed which will benefit the communities' well-being, making the area safe, viable and attractive.

- 10.3 A Globally Responsible Wales - Management and monitoring will also benefit biodiversity and demonstrate our global responsibility.
- 10.4 The works are in accord with the Council's Corporate Plan – Making A Difference – by creating Places where people are proud to live, work and play.
- 10.5 This also meets some of the objectives of the Cwm Taf Well-Being Plan 2018-2023 namely objective 1 Thriving Communities.

11 CONCLUSION

- 11.1 The Tip Safety Team are progressing the work of maintaining, monitoring and managing tips and tip safety within RCTCBC.
- 11.2 Processes have been developed from inspections to defect recording and prioritising maintenance.
- 11.3 Continuing focus on recruitment to fill the vacant posts within the team is needed.
- 11.4 The work relies on Coal Tip Safety grant funding. This also pays for a significant amount of minor and major maintenance on tips.
- 11.5 Tylorstown Landslip Remediation continues and other major projects are being developed such as remediation of scour to the toe of CV128 Penrhiwceiber and stabilisation work at RH77 Graig Ddu, Dinas.
- 11.6 The work, resource and funding is undertaken on a prioritised basis according to risk. Moving forward, desk studies, site investigations and monitoring will feed into the longer term management of tips.
- 11.7 The future legislative framework will change the responsibilities for Tip Safety and the team will develop accordingly.

Appendix 1 – Coal Tip Safety Grant Application Work 2023/24

Site or Tip Name/Location	Tip Ref	Category (A,B,C,D)	Ownership (public / private / multiple)	Description of works to be carried out
Upper Llanwonno Tip	RH01	D	RCTCBC	Tylorstown Landslip Remediation Phase 4 - works on site. Installation of monitoring cameras and longer term management. Phase 2 and 3 Permanent Use for Receptor sites – Design, planning and Works
Wattstown National Tip	RH03	D	RCTCBC	Drainage reparation – design, consents and installation. Three sites in order of priority: <ul style="list-style-type: none"> • Compound overflow drainage permanent repairs • Mid berm drainage • Cascade reconstruction
Hendre Gwilym	RH42	C	Private	Drone survey review Vegetation clearance Liaison with Coal Authority regarding adit
Ynyshir	RH72	C	Private Landowner permission required	Borehole condition review General maintenance Ground investigation and /or reinstallation of borehole monitoring if historic boreholes not accessible Stability Risk Assessment
Graig Ddu Dinas Tip	RH77	D	Private (unknown ownership)	Data gathering and monitoring, Design, Fees, Consents, for overall solution to improve stability with aim to be on site for 2025 subject to funding with some site preparation works in advance of main scheme
North of Gilfach	RH93	B	RCTCBC	Survey, desk study, drainage and geomorphology review
Abergorki	RH105	D	Private	Overview, inspection of culvert, inlet and erosion review, drainage and geomorphology assessment; initial design

Site or Tip Name/Location	Tip Ref	Category (A,B,C,D)	Ownership (public / private / multiple)	Description of works to be carried out
Cwmbach	CV63	D	RCTCBC and Private	Finish ground investigation reporting and produce ground model, slope stability assessment Clear fallen trees from watercourse to mitigate erosion risk Land purchase
Y Ffrwdd	CV101	D3	Private	Desk study and information review
Penrhiwceiber	CV128	A4	RCTCBC	Design and advanced vegetation clearance for 2024/25 works (subject to funding) Toe of tip scoured by River Cynon
Cefn Pennar	CV129	D	RCTCBC	Inspections, Surveys, Assessment of risks, Ecology Vegetation clearance Review of culvert inlet grille and access – design mitigation measures and install camera
Albion Tip (Lower)	TE03	D	RCTCBC	Maintenance of drainage installed in 2015 Improved drainage where ponding is noted Repair wall at toe of tip
Albion Tip (Upper)	TE04	B	RCTCBC	Maintenance and restoration of drainage
Cwm Colliery	TE64	D3	RCTCBC/ Private	Desk study and review of available information Culvert inspections Ecology assessments and review of drainage systems
Mynydd yr Eglwys	RH18/RH37/RH36	C/B	RCTCBC/ Private	Review of landslide at Mynydd yr Eglwys in context of risks to three tips in the immediate area

Site or Tip Name/Location	Tip Ref	Category (A,B,C,D)	Ownership (public / private / multiple)	Description of works to be carried out																														
Tips Maintenance and Investigation; Desk Studies; LIDAR surveys		B/C/D		<p>Higher priority maintenance and investigation including vegetation clearance for possible future works.</p> <p>Investigations include for desk studies of available, Drainage investigations and culvert inspection and LIDAR surveys.</p> <p>Maintenance includes drainage repairs, desilting, de vegetation, clearing culverts, maintaining access routes, erosion repairs and control.</p> <p>List of Tips Includes:</p> <table border="1"> <tbody> <tr> <td>RH113 / TE47</td> <td>RCT owned</td> </tr> <tr> <td>RH04 / RH05</td> <td>RCT owned</td> </tr> <tr> <td>CV122</td> <td>RCT owned</td> </tr> <tr> <td>RH36</td> <td>RCT owned</td> </tr> <tr> <td>RH43</td> <td>RCT owned</td> </tr> <tr> <td>RH58</td> <td>RCT/ NRW owned</td> </tr> <tr> <td>RH81 & 82</td> <td>RCT owned</td> </tr> <tr> <td>RH89</td> <td>RCT owned</td> </tr> <tr> <td>CV52</td> <td>RCT owned</td> </tr> <tr> <td>CV80/CV33</td> <td>RCT owned</td> </tr> <tr> <td>CV125</td> <td>RCT owned</td> </tr> <tr> <td>CV130 & CV127 & CV102</td> <td>RCT owned</td> </tr> <tr> <td>RH18</td> <td>RCT owned</td> </tr> <tr> <td>RH90</td> <td>RCT owned</td> </tr> <tr> <td>RH39</td> <td></td> </tr> </tbody> </table>	RH113 / TE47	RCT owned	RH04 / RH05	RCT owned	CV122	RCT owned	RH36	RCT owned	RH43	RCT owned	RH58	RCT/ NRW owned	RH81 & 82	RCT owned	RH89	RCT owned	CV52	RCT owned	CV80/CV33	RCT owned	CV125	RCT owned	CV130 & CV127 & CV102	RCT owned	RH18	RCT owned	RH90	RCT owned	RH39	
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