

Meeting Summary: Wheal Maid

Date & Time: 19/08/25

Attendees: Richard Williams, Sue Allen, Colin Bridges, Matt Sullivan, Kieren Couch, Zoe Abbots, Michael Wigley, Michael Hawes, Graham Sansom, Rob Knill, Julian Hughes, Chris Ring, Richard Williams and Richard Rider.\

Apologies: Darren Evens, Kevin Furnish, Jim Scown, Adrian Spalding

Overview

Key themes include off-road vehicle and mountain biking management, site remediation and funding, heritage conservation, user group dynamics (walkers, cyclists, horse riders), facility improvements, and community consultation. The content reflects ongoing challenges such as balancing user needs, ensuring commercial viability of projects, maintaining heritage structures, and engaging the community in planning processes. Action items are consolidated at the end for clarity and future reference.

Review of Previous Minutes and Reports

- Minutes from the June meeting were reviewed; no corrections or objections were raised.
- Reports from the Phyona exchange of emails and the article from the Camborne School of Mines were received and will be discussed under main agenda items.

Site Management and User Activities

Off-Road Motor Vehicles and Mountain Biking

- No progress has been made engaging the police regarding off-road vehicle problems; police are occupied with recurring annual events.
- An unknown individual has created earthworkings on the site with the intent to deter motorbikers. There is a strong suspicion about the identity of the person, based on previous incidents, but the individual denies involvement.

- Motorbike activity appears to have decreased in the area, though overall usage is sporadic and difficult to quantify due to inconsistent measurements.
- No recent complaints have been received from local residents.
- There have been reports of mountain bikers creating new jumps and extending existing ones. One recent modification could be considered dangerous but is located away from public footpaths.
- The intent behind some site modifications is perceived as deliberately harmful, contrasting with other activities that are more benign.
- Historical tensions exist with a local individual who is defensive about a particular area and has been physically aggressive towards bikers and others working on the site.
- A recent field trip with a group of about twelve people encountered young bikers and highlighted the need for regulation and oversight.

Monitoring and Estimating Site Usage

- Facebook is used to connect with the mountain biking community, but it does not capture all users; roughly half of active riders engage with the platform.
- Usage data from Strava and other sources provide partial insights but are not comprehensive.
- Estimating total visitor numbers is challenging due to variable weather and unpredictable patterns. On a typical summer weekend day, approximately 100 riders may be present, while winter numbers can drop to around 10.

Off-Road Vehicle Management and Site Control

- Updates were shared about the Wheal Jane site, which has received CCF funding for activities aimed at younger children under parental supervision. The site features a cross-country circuit in a controlled, safe environment, with plans to expand facilities such as a clubhouse and shelter.
 - The Wheal Jane site was noted as another example of a controlled area, aligning with broader aspirations to improve management of mountain biking and off-road activities.
 - Data gathering using Strava was discussed, with the accuracy of Strava estimated at only 30%, though it is considered more reliable in certain locations.
- Physical barriers and access control measures were reviewed:
 - The installation and management of a barrier and padlock at the start of one path has significantly reduced four-wheel vehicle access, with local residents reporting positive outcomes.
 - Offset barriers and controlled access points, such as gates and fences near residential properties, were found to be effective in limiting unauthorised entry, especially for motorbike riders.

- A recent incident involving a 4x4 vehicle resulted in severe damage due to boulders, highlighting the deterrent effect of site obstacles.
- The ongoing challenge of managing two-wheel off-road vehicles was acknowledged, with the observation that riders are often not teenagers but adults, and that certain deterrents (e.g., encounters with horses) can have a significant impact.

Remediation Projects, Funding, and Commercial

Viability

- Feedback was provided on an email exchange regarding a remediation proposal from Phyona following the last meeting, with general support for the concept and its phased approach, but concerns about affordability and financial guarantees.
 - The initial cost had been £64,000, but updated slides included additional maintenance costs, raising the total to £74,000.
 - Maintenance costs for years three to five had previously been omitted and were now included.
 - On behalf of the group, RAW had requested information on European grant availability and cost reductions.
- Reports from 2 other Phyona test sites were supplied and reviewed:
 - The Barnsley site, previously used for mining, showed promising results with certain plants (lettuce, thistles, nettle, rapeseed, corn) absorbing metals. Three test plots were established, with soil samples taken and harvests carried out in 2023 and 2024.
 - Results suggested remediation could be achieved in five years at the colliery site and under four years at a retired waste water treatment site, with metal concentrations reduced by up to 75% in some cases.
- Commercial viability concerns were raised:
 - AI analysis and human review both questioned whether the project could generate sufficient income, noting that bulk commodity prices are much lower than nanoparticle prices. Estimates by Phyona had been based on the latter.
 - It was estimated that only 20% of future profits would be returned, and it could take well beyond five years to recoup the initial investment.
 - The research paper supplied by Jim Scown indicated that the main benefit of such technology is site rehabilitation, not income generation.
- Collaboration with universities and research teams:

- The University of Exeter is seeking funding for community responses to river pollution, with a consistent view that phytomining is about offsetting remediation costs rather than generating profit.
- Falmouth University and other research teams are exploring biomaterial and insulation projects, though these are not expected to be commercially viable option for the group to pursue.
- Further opportunities may arise after the summer break, with potential contacts in remediation across the South West.

World Heritage Site Management and Ecological Review

- The Cornwall and West Devon Mining Landscape World Heritage Site is conducting an ecological audit for its new management plan as the current one ends in 2025.
 - The audit aims to collate biodiversity and habitat data across ten sites and will involve employing an ecologist to review all locations.
 - If the group's activities fall within the boundary, the audit may assess their work and provide feedback, though it is not expected to mandate specific actions.
 - The audit will inform future strategic management plans and require consultation with relevant stakeholders.
 - Some members expressed scepticism about the effectiveness of the World Heritage Site's oversight.
- The last five-year plan was well-written and full of good intent but concerns were raised about its effectiveness and resources.
 - The plan's implementation relied on only four people and lacks funding and tangible impact.
 - Previous plans did not enhance the World Heritage site, and the current ambition is considered disappointing.

Site Consultants, Facility Proposals, and Trail Planning

- Consultants, Mei Loci were formally appointed following grant approval.
 - Their initial work involved reviewing background information and preparing for public engagement.
 - The focus is on integrating walking, cycling, and mountain biking into a cohesive site plan.
- The site has evolved over 20 years as a community-built facility, fostering strong local engagement.
 - The objective is to formalise site arrangements to enable greater investment and funding opportunities.
 - Safety concerns and potential conflicts between user groups need to be addressed.

- Plans aim to broaden accessibility for all ability levels, with graded trails (green, blue, red) to accommodate novices, intermediates, and advanced users.
- Expanding user groups could benefit the local economy through increased hospitality and tourism.
- Community involvement is encouraged for site maintenance and fundraising.
- Improved site use may reduce anti-social behaviour, such as unauthorised motorbike use.
- Proposals include new trails in underused areas, enhanced waymarking, and improved gathering spots.
 - There is potential for additional amenities such as a café, bike maintenance, and rental services.
 - Car parking is currently limited and congested; active transport links and public transport options are being considered.
- The site is divided into four areas based on ownership and use, including the Wheal Maid Valley (Gwennap Parish Council), Poldice Valley, and the Wheal Fortune site (Cornwall Council).
 - Some ownership boundaries require clarification and will be updated in future documentation.
- The site is part of the Cornwall and West Devon mining landscape, an internationally protected area.
 - There are clusters of listed buildings and areas designated as Sites of Special Scientific Interest (SSSI).
 - The mining landscape has created unique habitats, such as Calaminarian grassland which is valuable for biodiversity.
 - Habitat improvements can be compatible with trail development, and disturbance from mountain biking may benefit certain butterfly species.
 - Opportunities exist for funding habitat enhancement alongside recreational improvements.
- Strava data was used to map key mountain biking and walking routes, highlighting the most popular trails and access points.
 - Advanced trails are concentrated in steep areas, while intermediate routes are on gentler terrain.
 - Some valley bottom areas are contaminated and less suitable for improvement.
 - Walking routes do not always align with designated public rights-of-way, and some mapped paths are now inaccessible.
- Bridleways and multi-use trails are important for both cyclists and horse riders.
 - Safety concerns exist where public rights-of-way intersect with high-use areas.

- Maintenance of rights-of-way is inconsistent due to funding limitations, and some routes have fallen into disrepair.
- LMP funding is available for improvements, but the process and future plans remain unclear.

User Group Dynamics and Heritage Considerations

- The site is used by horse riders, but exact numbers and usage patterns are unclear.
 - Horse riders are recognised as a key user group, with significant influence and ability to mobilise support, often outweighing their actual numbers.
 - Engaging with horse riders is seen as important but potentially challenging due to their strong advocacy for facilities.
- The Royal Horse Society is perceived as having a veto power over site changes, often prioritising horse rider interests.
- The current site landscape is not particularly horse-friendly due to rocks, steep terrain, and narrow trails.
- There is potential to improve the Bissoe Trail for horse riders and other users by widening access and reducing mountain bike traffic.
- Proposals include creating routes that are more attractive to walkers, general cyclists, and horse riders, not limited to public rights of way.
 - Signage and waymarked routes are suggested to improve safety and access, especially in areas currently favoured by walkers.
- Some trails are overgrown and could be reopened to increase accessibility for all users.
- The idea is to present a clear plan to horse riders and other groups, rather than soliciting open-ended input, to manage expectations and avoid demands for all facilities.
- There was discussion about realigning official paths to better suit current usage, though this is acknowledged as a lengthy process.
- The site contains several heritage hubs, including old mine buildings and railway structures, some of which are not listed but have heritage value.
 - The core area is identified as contaminated land, with habitat data showing butterfly sightings concentrated in open areas.
- Non-native species are spreading, and the plantation area requires management to avoid simultaneous die-off and to improve habitat diversity.
- Integration of heritage, environment, and user needs is emphasised, with health and well-being highlighted as a key argument for future funding and support.

- There is frustration over past failures to refurbish heritage buildings, such as the old smithy at Wheal Busy, despite significant allocated funding of £675,000 from Highways England.
- The group discussed the need for a broader management plan that encompasses all user groups and site features, aiming to regenerate and attract investment.
- The importance of integrating health, well-being, environment, and heritage into a unified vision was stressed as a way to strengthen proposals and overcome resistance.
- There is recognition that much of the world heritage site is deteriorating, and any improvements should aim to enhance access, visibility, and site condition.
- Suggestions were made to shift mountain bike traffic and develop new trails in underutilised areas, potentially with input from experienced trail builders.
- The quality and enjoyment of trails are seen as central to attracting repeat visitors and generating revenue.
- The group expressed interest in defining the scope and ambition of the study, considering both full-scale and limited approaches.
- Reference was made to the Tamar Trail Centre, which is currently limited in facilities (café and toilets closed), highlighting the importance of sustainable amenities for site attractiveness.
- Many public rights of way are linked to mining heritage, with unique features such as white granite for navigation.
- The need for integration and mutual benefit in site design was emphasised, with Cornwall Council's role and policies discussed.

Heritage Preservation, Visitor Facilities, and Zoning

- There have been collapses along the Red River, prompting calls for increased investment and action from local members.
 - Limited access currently results in very few visitors appreciating the heritage features.
 - Greater access and visibility are expected to foster local pride and encourage preservation efforts.
- Examples such as Chapel Porth demonstrate that well-maintained sites can thrive without higher statutory protection, largely due to community engagement and regular upkeep.
- The unique landscape, including old train tracks and overgrown railway cuttings, offer special viewpoints and features that could attract more visitors if promoted.
- Proposals include developing a visitor centre, café, and car park to enhance the site's appeal.

- The café could start as a pop-up facility and expand over time, possibly using container-based structures to minimise impact.
 - Locating the car park in a woodland clearing at the southern end of the site would keep vehicles away from the valley, preserving its tranquillity for walkers and cyclists.
- Mountain bike tourism is identified as a year-round, middle-income activity that benefits the local economy through multi-day visits and local spending.
- The site has potential for events such as wedding photography, provided stability and safety improvements are made to key viewpoints.
- Initial zoning master plans have been drafted, with ongoing consultation and feedback sought from stakeholders.
 - The plan includes separate areas for novice and advanced mountain biking, as well as walking routes.
 - The main track is crucial for both cyclists and walkers, with efforts to separate walking, biking, and vehicle access.
 - Controlled vehicle access beyond the car park is proposed, with gated entry to the café and heritage buildings.
- Recreational zones, such as picnic areas and scenic viewpoints, are planned to enhance visitor experience.
- Walking and cycling routes are being mapped, including a new link through the railway cutting to connect with the Poldice Valley multi-use trail.
 - There is an emphasis on creating accessible, waymarked loops for families, wheelchair users, and prams.
 - The potential for themed walking routes, such as a "mine building loop," is being considered to encourage use of designated paths.
- Maintaining historic engine houses is costly, with specific challenges around materials, colour matching, and conservation requirements.
 - Conservation officers oversee restoration work, especially in areas like South Crofty and Troon.
 - Commercialising certain aspects of the site is seen as a way to fund ongoing preservation.
- There is concern that without significant investment, some structures may deteriorate further in the coming decades.
- The group agreed on the importance of public consultation and expert input, particularly from experienced trail designers.
 - Early site visits by trail experts are planned to refine the zoning and trail layout.
 - Presenting an intermediate plan, rather than detailed technical documents, is seen as key to effective community engagement.
- The upcoming Redruth Mining Heritage and Pastry Festival is identified as an opportunity to display plans and gather feedback.

Trail Planning Toolkit and Community Consultation

- The group agreed that, within two months, the goal is to produce a toolkit with indicative, typical details suitable for various locations, rather than a fully detailed plan showing all trails.
 - The toolkit will include solutions for different scenarios, such as signage, zones, interpretation, and seating areas.
 - This approach is intended to provide flexible options that can be adapted to specific site needs.
- The aspiration is to legitimise current mountain biking activities while addressing conflicts and concerns raised by the parish council and local community.
- The proposed timeline is to have the toolkit and consultation plan ready in two months, with an interim discussion with Matt in the meantime.
 - There was consensus that a detailed plan showing all trails is not feasible within this period.
 - The group discussed the need for intermediate steps, such as informal discussions and possibly leaving materials for review.
- Various consultation methods were considered:
 - A temporary Facebook page was suggested but dismissed as not suitable.
 - Questionnaire-based consultation was favoured, as it allows for targeted questions and qualitative responses.
 - Example: "57% of respondents said they want more advanced trails," illustrating the value of qualified data.
 - The importance of reaching a wide demographic was emphasised, recognising the need to engage different community groups.
- Ideas for the trailhead included creating a focal gathering space and meeting area, which would serve both mountain bikers and visitors enjoying the views.
 - Suggestions included an accessible grill over a mine shaft, designed to accommodate bats, to highlight the site's history and improve accessibility.
 - Additional features discussed were cycle stands, a pop-up café with a canopy, bike maintenance facilities, and black-edged buildings to fit the landscape.
- The car park and viewing ramp concepts were presented:
 - The ramp would provide access for walkers and serve as a viewpoint over the valley, also acting as a spectator area for mountain biking activities.
 - The design aims to integrate both novice and advanced users, enhancing the experience for all visitors.

- The group expressed appreciation for the suggestions and work presented.

Open Issues and Risks

- Police engagement on off-road vehicle issues remains unresolved.
- The identity of the individual responsible for recent earthworkings is strongly suspected but not confirmed.
- Quantifying site usage and monitoring unauthorised activities is difficult due to inconsistent data and unpredictable patterns.
- Ongoing tensions with a local individual pose a risk to community relations and site safety.
- The need for clearer regulation and oversight of mountain biking activities is recognised but not yet fully addressed.
- The commercial viability of the Phyona remediation project remains unresolved, with doubts about the ability to recover costs and generate profit.
- Maintenance costs for years three to five were previously unclear and have only recently been included in the proposal.
- It is unclear whether the remediation teams have ever completed mineral recovery beyond sampling and concentration testing.
- The impact of the World Heritage Site audit on ongoing activities is uncertain, particularly regarding future management plans and required consultations.
- The commercial viability of the technology project remains unresolved, with no clear funding path.
- Ownership of certain site areas is unclear and requires further investigation.
- Maintenance and future management of public rights-of-way are uncertain due to unclear council plans and inconsistent funding.
- Car parking congestion and capacity issues need further assessment and solutions.
- Potential conflicts between different user groups (walkers, cyclists, horse riders) require ongoing attention to ensure safety and accessibility.
- The exact number and usage patterns of horse riders remain unclear, making it difficult to plan facilities proportionately.
- There is unresolved tension regarding the influence of horse rider advocacy versus actual site usage.
- The process for realigning official paths is acknowledged as lengthy and complex, with no clear timeline.
- Resistance from heritage bodies and the World Heritage Site to site modifications, such as building refurbishments, remains a significant barrier.

- The deterioration of heritage buildings and lack of clarity on refurbishment policies pose ongoing risks to site value.
- It is unclear how to balance the needs of all user groups without reducing choice or causing new conflicts.
- The overall ambition and scope of the site improvement study have not been finalised.
- The specific allocation of responsibilities for next steps remains unclear.
- There is uncertainty regarding the final locations for parking and visitor facilities, pending further site visits and consultation.
- Ongoing funding for the maintenance and preservation of heritage structures is unresolved.
- Potential conflicts between different site users (walkers, cyclists, vehicles) need to be addressed in the final plan.
- The process for community engagement and the format of consultation materials require further definition.
- It remains unresolved how to ensure effective consultation with all relevant community demographics.
- The specific responsibilities for developing and distributing consultation materials are unclear.
- There is a risk that the two-month timeframe may not be sufficient for all necessary discussions and feedback collection.

Action Items

[] Invite the Falmouth University dean to a future session to discuss remediation contacts and opportunities.

[] Update site ownership boundaries and names in future documentation.

[] Address safety concerns on key public rights-of-way, especially in high-use mountain biking areas.

[] Prepare and present material for the event on 21st September.

[] Organise site visits with trail design experts to refine zoning and trail plans.

[] Conduct public consultation and gather feedback on the proposed plans.

[] Map potential walking and cycling routes, including accessible loops and themed trails.

[] Develop a toolkit with indicative details and solutions for trail planning within two months.

[] Conduct an interim discussion with MS before the final plan is signed off.

[] Prepare and distribute a questionnaire to gather community feedback across different demographics.

AI Suggestion

AI has identified the following issues that were not concluded in the meeting or lack clear action items; please pay attention:

1. The commercial viability and long-term funding of the proposed remediation project remain unresolved, with ongoing uncertainty about maintenance costs, sources of finance, and whether initial investment can be recouped; there is also a lack of clarity regarding economic assumptions, profit-sharing, and the availability of European grants, all of which pose significant risks to project delivery.
2. The effectiveness of current site management measures, including physical barriers and access control, is unclear, particularly in relation to unauthorised off-road vehicle activity; there is no agreed plan for future installations, maintenance responsibilities, or funding, and the identity of individuals responsible for recent unauthorised earthworkings has not been confirmed, leaving site safety and community relations at risk.
3. Current methods for monitoring site usage and unauthorised activities are unreliable and inconsistent, with incomplete data from sources such as Strava and Facebook; there is no clear strategy, responsible party, or timeline for improving data accuracy and integrating multiple sources, which undermines informed decision-making and risk management.
4. The process for community engagement and consultation lacks definition, with unclear responsibilities for developing and distributing materials, and uncertainty about how to ensure effective participation from all relevant demographics; the proposed two-month timeframe for toolkit development and consultation may be insufficient for thorough feedback and consensus-building.
5. Ongoing funding and clear policies for the maintenance and preservation of heritage structures are unresolved, with resistance from heritage bodies and the World Heritage Site to site modifications, and a lack of clarity on refurbishment plans, all of which threaten the long-term value and integrity of heritage assets on site.