

## Cocksburn Reservoir/Dumyat Footpath Works – Environmental Clerk of Works Report

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**Report No. - Week commencing** 12 – 02/04/2018  
**Site visit** 04/04/2018  
**Weather during visit** Heavy blizzards, strong winds and lying snow  
**Report Issued** 04/04/2018



- Summary of construction activity on site**
- Top surface completion on Section 2 and 4.
  - Top surface works on Section 9.
  - No further works on Cocksburn Reservoir.
- ECoW Activities**
- Checks of existing drainage and silt mitigation.
  - Walkover Cocksburn Reservoir route.
  - Walkover Section 9 of Dumyat Hill and compound areas.
  - No walkover of upper sections of Dumyat due to weather conditions.
- Anticipated future activities on site**
- Proposed activities will be weather dependent due to wintery conditions.
  - Completion of Cocksburn Reservoir route to junction – approximately 300m of top layer and reinstatement required.
  - Commencing Section 6 of Dumyat path.
- Information Requests**
- Concerns over Revised CEMP and SWMP highlighted by SPEN – no further revisions received to date.
  - Concerns raised by SPEN with respect to safety of temporary plated watercourse crossings. McGowans to confirm timing of final bridge installation and assess how improvements of existing crossing can be implemented.
- Observed Good Practice**
- Good use of plant nappies throughout site including up on hill.
  - Use of appropriate drainage where required with drainage ditches within pathway sites running clear.
  - Good quality reinstatement along north side of reservoir and along Section 2 and Section 4 of Dumyat path.
  - Generally good use of silt fences.

<b>New ECoW Observations</b>					
<b>Ref</b>	<b>Site Area</b>	<b>Category</b>	<b>Details</b>	<b>Recommendations</b>	<b>Importance</b>
12.1	Cocksburn/ Compound	Drainage/ Silt	Silty water was observed entering the Cocksburn Reservoir via the eastern tributary of the Cocks Burn which flows under Sheriffmuir Road close to the Site compound. Source of dirty water was identified as coming from two locations. 1 – Section of ditching works approximately 400m north of the compound along Sheriffmuir Road, and 2 – small volumes of dirty water draining out of entrance to compound and passing over road and into eastern roadside ditch which then flows into burn.	Issue inspected with SPEN and later with McGowans. 1 - McGowans confirmed that urgent ditching work was undertaken on morning of 4 <sup>th</sup> April as a culvert was blocked pushing majority of ditch water onto road north of compound resulting in significant surface water on public road. Ditching works therefore resulted in short period of silt input to ditch. Further investigations of blocked roadside culvert to be undertaken during more favourable weather conditions. On completion of site visit this water was beginning to run clean again. 2 - Additional silt mitigation within the compound was discussed and a small ditch was extended to catch surface water drainage from hardstanding with additional sumps installed adjacent to entrance gate to improve dirty water management. Options for further silt control in this area are limited but issue requires monitoring to identify whether or not further measures are required.	High
12.2	Cocksburn	Drainage/ Silt	Culvert entrance is partially blocked with sub-base material potentially reducing effectiveness of drainage.	Clear culvert entrance to ensure culvert remains effective.	Low

**Photographs**



12.1 Mixing of dirty and clean tributaries of Cocks Burn.



12.1 Dirty water originating at location of ditching works north of compound.



12.1 Small volumes of dirty water run off from compound.



12.1 Dirty water runoff from compound reaching roadside ditch and burn.



12.1 Mitigation work underway soon after issue identified. Aim to catch majority of surface run off within compound and direct to existing and new sump.



12.2 Partially blocked culvert, reducing effectiveness of drainage.

<b>Ongoing ECoW Observations</b>					
<b>Ref</b>	<b>Site Area</b>	<b>Category</b>	<b>Details</b>	<b>Ongoing Notes</b>	<b>Importance</b>
11.1	Cocksburn	Habitats	Storage of top layer material has mixed with adjacent turves, making reinstatement more difficult.	<p>Ensure that turves are not contaminated with stored materials. Ensure that as much material as possible is removed from turves and adjacent habitat as is possible during reinstatement.</p> <p>04/04/2018 – Issue noted by McGowans and area is to be tidied and reinstated as soon as weather allows.</p>	Moderate

<b>Recently Closed ECoW Observations</b>					
<b>Ref</b>	<b>Site Area</b>	<b>Category</b>	<b>Details</b>	<b>Notes</b>	<b>Closed</b>
4.1	Cocksburn Reservoir and Dumyat	Protected Species	Due to weather and alterations in scope, delays are expected. This is likely to result in works ongoing during the start of the nesting bird season. All wild birds are protected while nesting or constructing a nest. Exact timings of nesting depends on the species and weather conditions.	<p>UK birds typically nest between March and August with May and June the peak breeding months. In addition different bird species have different sensitivities to disturbance. The following mitigation approach is recommended if works cannot be suspended during the nesting season.</p> <ul style="list-style-type: none"> <li>- Attempt to get base material of path down in all areas prior to mid-late March. Presence of machines and activity should deter particularly sensitive species from nesting close to works corridor.</li> <li>- Undertake sections to the south of the Reservoir first, then the eastern side of the reservoir with the northern section last as this is in order of likely presence of nesting birds based on habitat suitability.</li> <li>- Consider strimming/clearing corridor to reduce chances of ground/scrub nesting birds. However, it is noted that this may be perceived negatively by interested parties with respect to the surrounding vegetation.</li> <li>- During March/April, maintain as high 'presence' as possible to deter nesting birds from selecting nesting sites close to works area. However, as soon as nesting has been identified at a location this approach must</li> </ul>	04/04/2018

				<p>be stopped as disturbance at this point may be an offence.</p> <ul style="list-style-type: none"> <li>- It is recommended that an ornithologist is employed to undertake regular surveys.             <ol style="list-style-type: none"> <li>1) Weekly surveys during March to identify species arriving on site and potential nesting locations.</li> <li>2) Between April and July/August (or end of works if sooner) surveys along path routes every other day to identify any nesting bird locations and provide advice accordingly as to the potential for disturbance and any additional mitigation required.</li> </ol> </li> </ul> <p>Final approach of any nesting bird mitigation to be agreed by SPEN, McGowans and ECoW.</p> <p>06/02/2018 – No issues at present, awaiting response from SPEN with respect to recommendations.</p> <p>15/02/2018 – issue highlighted again. Progress has been good during better weather and hope is that all initial habitat disturbance (sub base formation) will be completed prior to nesting season. Situation is to be monitored but ECoW recommended that a plan is formulated prior to need to ensure no delays when required.</p> <p>22/02/2018 – As detailed previously it is recommended that weekly surveys are commenced during early March to highlight potential nesting locations. All efforts should be made to ensure base layer is formed as soon as possible as presence of works along path route should deter majority of species from forming nests in this location.</p> <p>27/02/2018 – Wintry weather continues and is likely to reduce risk of breeding bird issue for the next week or so. It is expected that the sub-base layer around Cocksburn will have been completed in the next week – 10 days significantly</p>	
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				<p>reducing risk of breeding bird issues. It is still recommended that the issue of breeding birds is considered seriously with additional surveys undertaken in the coming weeks to ascertain risks. Impact of helicopter may also need to be considered.</p> <p>16/03/2018 – Winter weather has continued with snow still present on ground in some locations. No further disturbance to new ground is required around Cocksburn Reservoir with works to complete top layer and reinstatement planned to commence week commencing 19/03/2018. As such disturbance to birds in this section now less likely. Caution is still required with respect to habitat adjacent to path and marginal vegetation around reservoir. Concern remains for remaining sections of Dumyat Hill, although risk is again not high due to ongoing disturbance from public use of existing path. Recommendation remain in place for additional breeding bird surveys along remaining sections of Dumyat path.</p> <p>21/03/2018 – Increase in bird activity within the Cocksburn Reservoir area identified including cormorant, mallard, golden eye, coot, black-headed gull all present during visit. In addition approximately 8 lapwing observed in flight over fields to north at approximately 200m from works area. Email sent to SPEN with respect to recommended bird surveys – awaiting reply. It is likely that works within Cocksburn area will be nearing completion within 2 weeks and risk is therefore relatively low. Concerns over nesting bird disturbance on Dumyat remain. Observation of skylark calling are becoming more frequent, although not in areas of proposed work at present.</p> <p>30/03/2018 – No new identified nesting bird issues during visit. Care will be needed when working past the sections of</p>	
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				<p>gorse scrub. Limit any disturbance close to scrub as far as possible. No scrub to be removed. Continue to review situation. High activity from public, including dog walkers noted – likely to dissuade nesting birds from areas adjacent to path. Disturbance of nesting birds on Section 6 of Dumyat still possible and requires careful attention during works.</p> <p>04/04/2018 – Wintery weather continues to delay onset of breeding bird season, although it is likely that nesting activities will occur soon after improved weather occurs. In discussions with SPEN it is assessed that due to the level of activity on Site from both public (including dog walkers) and construction team, levels of disturbance on a daily basis are relatively high and risk of nesting birds in close proximity to works area is low. As a result a breeding bird walkover of relevant areas will be undertaken at the start of each week to ensure that any issues are flagged to ensure compliance with wildlife legislation.</p>	
11.2	Cocksburn	Drainage/ Silt	Silt fence installation not correct, bottom edge of one silt fence just weighted down with rocks.	<p>This silt fence will be ineffective and should have the bottom edge dug into the ground as per best practice installation.</p> <p>04/04/2018 – Silt fence installation improved. Recommended that silt fences within culvert sections are removed as soon as works in area are complete.</p>	04/04/2018
11.3	Cocksburn	Sensitive Habitats	Vibrating roller stored on grassland habitats adjacent to path.	<p>Ideally all plant should not be stored on semi-natural habitats if it can be avoided. It is appreciated that path should not be blocked, but if possible roller should be tracked back to area of wider incomplete path sections.</p> <p>04/04/2018 – Issue noted by McGowans and in future storage of plant will be on already disturbed ground or suitable sections of path under construction.</p>	04/04/2018
11.4	Dumyat	Pollution Risk	Compacting plate stored too close to watercourse on Section 4.	All plant should be stored in excess of 10m from any watercourses.	04/04/2018

				04/04/2018 – Issue noted by McGowans and small plant will be stored in excess of 10m from watercourses in future.	
1.5	Cocksburn	Sensitive Habitats/Species	Particular care needed on wetter areas along north eastern side of reservoir not to disrupt hydrology and associated wetland/flush habitats.	<p>08/01/2018 - Minimise working corridor and plan works to avoid unnecessary disturbance. Culverts placed appropriately to maintain existing hydrological connectivity. Need for careful silt management in such areas.</p> <p>16/01/2018 – no works at location at present.</p> <p>24/01/2018 – No works at present. During the visit the Cocksburn had broken its banks northeast of the old sluice creating an additional wide flow of water crossing the path route approximately 20m north of the sluice. This needs to be taken into account when designing the track drainage and culverts. Single 300mm culvert at this location is unlikely to be sufficient under such flood conditions.</p> <p>In addition after observing the volumes of silt being washed out of the imported rock, significant silt management will be required. It may be sensible to consider aggregate with reduced fines for wet sections to minimised the potential volumes of silt. Managing work with weather constraints will also be vital.</p> <p>30/01/2018 – Additional mitigation approaches discussed between SPEN, McGowans and ECoW:</p> <ul style="list-style-type: none"> <li>• Increasing diameter of proposed culverts to ensure capacity large enough for flood events.</li> <li>• Micrositing discussed with line of path adjusted very slightly to take higher line in places.</li> <li>• Use of clean rock in wet areas to reduce silt issues.</li> <li>• Need to confirm design of watercourse crossings and temporary plant crossing at watercourse locations with respect to H&amp;S concerns and CAR registration.</li> </ul>	30/03/2018

				<p>Further dialogue with respect to final approach to be undertaken. No works in area at present.</p> <p>06/02/2018 – No works at present, awaiting further clarity from SPEN.</p> <p>15/02/2018 – Works through wet areas on southern side of reservoir undertaken during appropriate weather and managed well with early installation of culverts. Recommend that where areas may become wet, turf edges are reinstated as early as possible to minimise risk of materials being washed out. No issues to date. Wetter areas on north east side of reservoir to be undertaken with extra care with use of clean rock where flooding may occur. CAR requirements to be confirmed with SEPA. At present it is felt that works can proceed under General Binding Rules – SEPA to confirm.</p> <p>22/02/2018 – SEPA confirmed that proposed operations can be undertaken under GBRs. Works to be undertaken during next week.</p> <p>27/02/2018 – watercourse has been temporarily bridged with clean rock used adjacent to watercourse. No issues to report.</p> <p>16/03/2018 – Good use of clean rock for high risk areas has proven effective with recent high water levels not resulting in any observable silt input to watercourse despite high water levels reaching lower sections of material. Some of further wet areas have been crossed with sub-base formation. Despite these areas being very wet, effective use of silt fences has minimised any silt input to watercourses/reservoir. Silt fence located within channel of the larger ditches should be removed at earliest opportunity on completion of all work likely to cause disturbance/silt input.</p>	
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				<p>21/03/2018 – No changes since visit last week. Silt fences installed at plated crossing only moderately effective due to volumes of water passing through location. All water clean and impacts on water quality not expected. Consider removing silt fences at earliest opportunity once top dressing and reinstatement in place.</p> <p>30/03/2018 – Only top layer and reinstatement required which should not impact on wet areas. Adequate culverts and drainage have been installed with no siltation issued identified.</p>	
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# Cocksburn Reservoir and Dumyat Footpath Works

ECoW Visit 12 - 04/04/2018



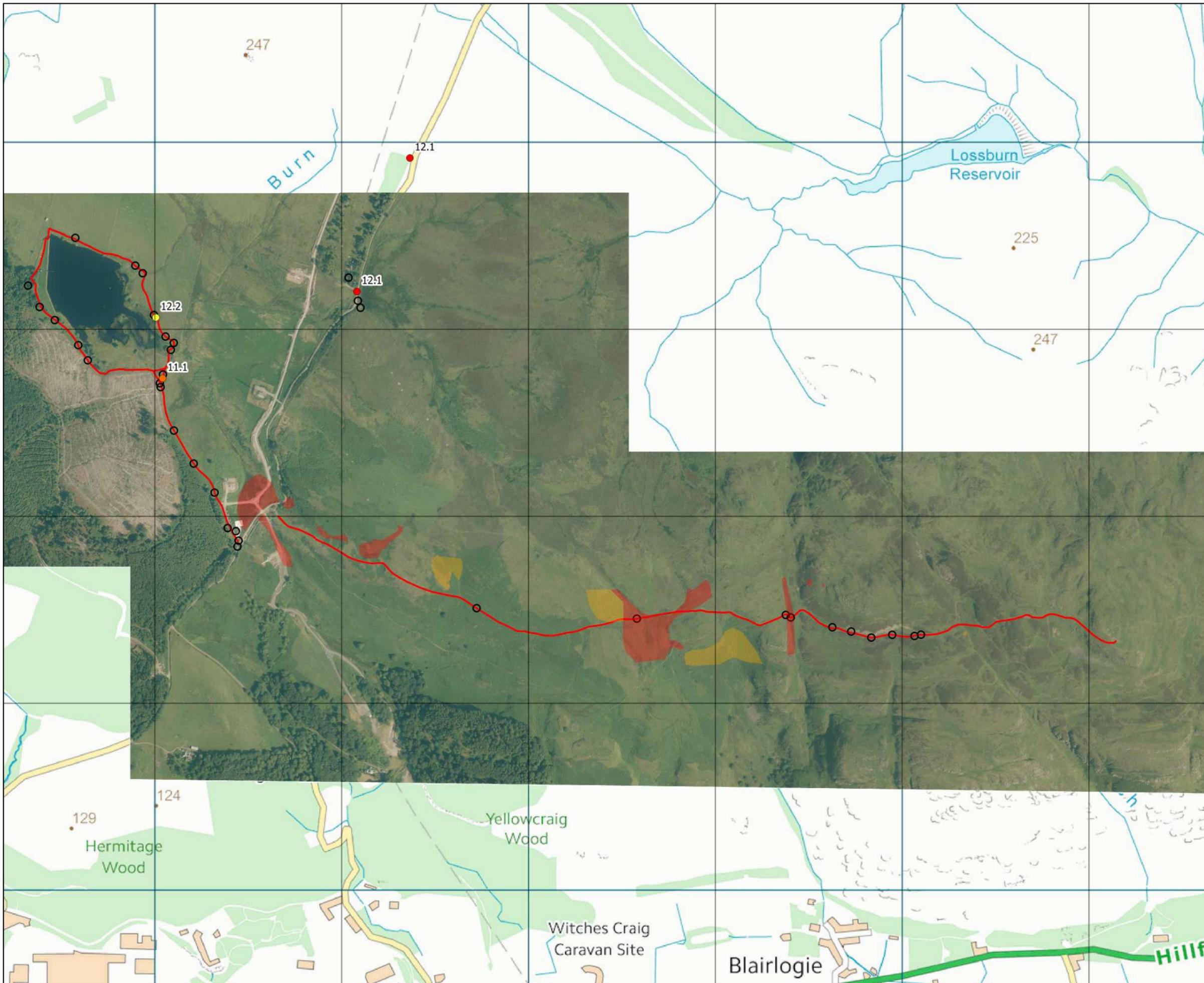
## Legend

### GWDTE Dependency

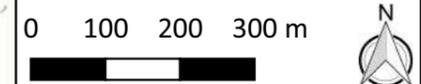
- High Potential
- Moderate Potential

### ECoW Observations

- Moderate
- High
- Low
- Resolved
- Updated Proposed Path Routes



Note: Aerial imagery from 2015 during Beaulie Denny construction



Drawing number: 18/001/MCG/013  
 Revision: 1  
 Date of production: 2018-04-04  
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 Projection: British National Grid EPSG:27700  
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