

Questions on Notice & Outstanding Actions Register

Bowdens Silver Project Community Consultative Committee

As per Section 5 of the Community Consultative Committee Guidelines, "The proponent must respond to any questions asked or advice given by the committee about the proponent's environmental performance or community relations. These responses must be given to members within 28 days of a committee meeting, unless the meeting's minutes specify otherwise."

Item Number	Meeting	Date	Question	CCC Member	Responsibility	Status	Response
1	Meeting 1	12-Dec-17	Question re: the groundwater consultant and design of the project, Seeking clarification around the frequency of the storm event that the water storage facility/tailing dam will be designed to withstand (1 in 10, 1 in 50, or 1 in 100 year storm).	Tom Combes	Bowdens Silver Pty Limited	Finalised	Bowdens Silver requires clarification as to the specific intent of this question. Does the question relate to: (a) the positioning of the dam (ie embankment and crest) above the water level of a particular flood event (ie no inflow of floodwater or damage to the structure); or (b) the operational freeboard, which is the volume of the space retained between the spillway and the tailings profile to accommodate rainfall/runoff inflows without releasing to the environment (ie design storm allowance); or (c) the size of the spillway, (ie to safely pass any flow during rainfall events greater than the design storm allowance)? Dam design is strictly controlled and must meet criteria as set out by the NSW Dam Safety Committees which in the case of tailings storage facilities (TSF), relies on the Australian National Council on Large Dams design guidance. The design criteria are dictated by the "Consequence Category" of the TSF. Further detail regarding the Consequence category of the Bowdens Silver TSF can be provided when Bowdens Silver's TSF consultant (ATC Williams) returns from leave. During extreme weather events, operations usually shut down for safety reasons, during which time there is no tailings deposition. Furthermore, the design storm allowance of the TSF MUST be maintained at all times and if it is not then there are serious consequences for dam owners, operators and the responsible engineers.
2	Meeting 1	12-Dec-17	Question re: whether the groundwater model will be a "Class 3 Model" under national modelling guidelines.	Tom Combes	Bowdens Silver Pty Limited	Finalised	Bowdens Silver's groundwater model is a Class 2 model confidence level classification under the Australian Groundwater Modelling Guidelines, suitable for impact assessment. The model has been successfully calibrated using the observed behaviour of groundwater in the monitoring network over time. Bowdens Silver's groundwater consultant (Jacobs) advises that Class 3 models are invariably aquifer resource models developed by regulatory agencies to determine the sustainable allocation of resources year on year.
3	Meeting 1	12-Dec-17	Question re: previously identified Aboriginal sites. On the drive in to the homestead, there are rocks in the paddock to the right - has that been fenced off?	Brad Bliss	Bowdens Silver Pty Limited	Finalised	The paddock containing the Aboriginal heritage sites referred to was fenced off when the sites were initially identified, and remains fenced off. Since the initial fencing, livestock have been excluded from this paddock and the farm plan stipulates that no grazing etc. can be undertaken in this area. This area is recognised by site personnel as a "no go zone" and is only accessed for water monitoring purposes along existing tracks. Refer to Attachment 1.
4	Meeting 1	12-Dec-17	Comment re: proximity of nearby properties, and ensuring the approximately 2-300 people who live within several kilometres of the pit and infrastructure layout are informed.	Mick Boller	Bowdens Silver Pty Limited	Finalised	Since the inception of the Bowdens Silver Project a wide range of avenues have been utilised to ensure we have shared information on our project and proposed infrastructure designs with members of the Lue community as well as community members within the wider Mid-Western Region area. These have included face to face meetings, phone and email interactions, newsletters and information sheets, Community Consultative Committee meetings, interviews, website updates, community open days and public presentations. Please refer to the attached map (Attachment 2) showing distances from the proposed pit centre. Please note that infrastructure design and placement is ongoing.
5	Meeting 2	14-Feb-18	Question 2 re: how concentrate would be transported from the site, and what percentage of lead is captured in the concentrate.	Bradley Bliss	Bowdens Silver Pty Limited	Finalised	The silver/zinc concentrate and silver/lead concentrate will be placed within sealed sea containers for transportation on flat bed trucks. The latest optimisation shows process recoveries of approximately 80% for silver and 83% for each of zinc and lead. With regards to concentrates and based on the latest optimisation works, the Life of Mine will produce approximately 310,000 dry tonnes of concentrates. Within these concentrates will be over 50 million ounces of silver, approximately 110,000 tonnes of zinc and 80,000 tonnes of lead.
6	Meeting 2	14-Feb-18	Question 6 re: Tailings dam and what mitigations are being undertaken to minimise impact to Lawsons Creek and Mudgee.	Tom Combes	Bowdens Silver Pty Limited	Finalised	Please refer to independent expert's response provided in the appendix to Meeting 3 Minutes.
7	Meeting 2	14-Feb-18	Question 7 re: Reported recent sighting of dust rising from a drilling rig.	Tom Combes	Bowdens Silver Pty Limited	Finalised	Information was received on 19/4/18 outlining details of a sighting of dust rising from a drill rig on 22/7/17 near the proposed TSF area. Records confirm that drilling occurred on this date in this area. The drill rig operating at the time had the standard and necessary dust mitigation systems in place. Two BSPL staff were working with the drilling contractors on that date and drill logs suggest nothing out of the ordinary occurred that day.
8	Meeting 2	14-Feb-18	Question 8 re: presenting 3D representation of the site.	Sally Dryburgh	Bowdens Silver Pty Limited	Finalised	Once the final mine site layout is determined, Bowdens Silver will aim to display this in a visual format that allows interested stakeholders to view the project in a 3D format. At present, this is planned to be in a 3D digital format.
9	Meeting 2	14-Feb-18	Question 11 re: What wind and dust monitoring is undertaken to the East of the site and down Powells Road.	Mick Boller	Bowdens Silver Pty Limited	Finalised	Please refer to independent expert's response provided in the appendix to Meeting 3 Minutes.
10	Meeting 2	14-Feb-18	Question 13 re: Distance between the mine and local residents, and availability of a map of the final mine layout.	Mick Boller	Bowdens Silver Pty Limited	Finalised	A map was provided to all CCC members on 16/1/18 outlining distances from the centre of the proposed pit. The EIS will include an updated map of the land ownership and residences surrounding the Mine Site and relocated Maloneys Road together with a detailed plan showing land ownership and residences within Lue Village. A table will be provided listing the distances between the various residences and the closest area of disturbance and the closest edge of the open cut pit, waste rock emplacement, processing plant and tailings storage facility. This information will be used in the Noise and Air Quality Assessments. The map of the final mine layout will be included in the EIS, however, a draft mine layout will be circulated to the specialist consultant team with the description of the Project for their use in assessing the environmental impacts of the draft mine layout. The final mine layout will reflect the results of the various environmental assessments undertaken by the specialist consultant team.
11	Meeting 2	14-Feb-18	Question 16 re: Impact of lead on young people and relation to smelting process.	James Armitage	Bowdens Silver Pty Limited	Finalised	Please refer to independent expert's response provided in the appendix to Meeting 3 Minutes.
12	Meeting 2	14-Feb-18	Question 21 re: water that will be held on site, and impact on Lawsons Creek.	John Lydiard	Bowdens Silver Pty Limited	Finalised	Water required for the Project to support processing operations and the requirements for dust suppression would be met from sources that are authorised in accordance with the provisions (e.g. water access licences) set out in the Water Management Act 2000 (WM Act) and supporting regulations such as the Water Management (General) Regulation (2011) (WM Reg) or the applicable Water Sharing Plan (WSP). In summary, the water management strategy for the Project would be as follows: WATER SUPPLY As a landholder, BSPL is entitled under the harvestable rights provisions of the WM Act, to capture and collect a volume of surface water runoff. This water may be used for any purpose (e.g. processing or dust suppression). Additional water for operations would include runoff captured and collected from potentially mine affected catchments (e.g. processing plant, tailings storage facility and waste rock emplacement). As this water could potentially contain contaminants, it would be used in processing operations to optimise efficient use of all water resources within the Mine Site. Under Section 60I of the WM Act, a water access licence is required for the volume of groundwater intercepted by the excavation of the open cut pit. BSPL would secure water access licenses under the relevant WSPs and collect this groundwater (via in pit sumps or advanced dewatering bores) for use in processing operations. Any additional water for use in mining operations either from groundwater or surface water sources would need to be sourced under the provisions set out in the WM Act. STORMWATER RUNOFF The capture, collection and management of sediment-laden runoff generated on disturbed catchments (e.g. areas cleared of vegetation or soil stockpiles) would also occur, however, once the suspended material has had sufficient time to settle and the water is of suitable quality, this water would be released into the receiving environment. Stormwater runoff from catchments undisturbed by mining and related activities would be diverted away from disturbed catchments and allowed to discharge into the receiving environment. This strategy would be implemented to assist in maintaining, to the greatest extent practicable, the existing discharge regime in the receiving environment and to lower the volumes of water requiring management on the Mine Site, thus lowering the risk of discharging potentially

13	Meeting 3	10-Apr-18	Question 9: Where the VSW13 bore is located?	Mick Boller	Bowdens Silver Pty Limited	Finalised	The reference for this bore is actually BSW13. It is located to the east of BSPL owned land along Powells Road.																																																													
14	Meeting 3	10-Apr-18	Question 12: How many private bores are being monitored?	Mick Boller	Bowdens Silver Pty Limited	Finalised	There are currently 21 private bores being tested.																																																													
15	Meeting 4	14-Aug-18	Question 7: What is the water requirement of the site? What will be needed over and above the 2 ML per day figure?	Tom Combes	Bowdens Silver Pty Limited	Finalised	The water requirements of the various components of the operation are as follows: <ul style="list-style-type: none"> • Processing plant operations require approximately 1716 ML per annum: 930 ML of this will be returned from the Tailings Storage Facility and 790 ML will be made up from raw water, mine dewatering and storm water. • Dust suppression: water requirements will be varying dependent upon climate and weather. Approximately 110 ML per annum will be required. 																																																													
16	Meeting 4	14-Aug-18	Question 11: Will the water pipeline positioned along road easements come under the Commonwealth EPBC Act?	Darryl Watkins	Bowdens Silver Pty Limited	Finalised	Yes.																																																													
17	Meeting 6	27-Jun-19	What is the exact source of water for the proposed pipeline?	Sonia Christie	Bowdens Silver Pty Limited	Finalised	The water proposed to be supplied to Bowdens Silver via the proposed pipeline is comprised principally of water dewatered from mine underground workings, a small amount of storm water and incident rainfall is captured in water storage areas. Water dewatered from the underground workings is primarily from the Permian aquifers or coal seam with proportionally lower contributions from overlying aquifers which flow into the underground workings through fractures above the coal seam.																																																													
18	Meeting 6	27-Jun-19	What evidence would be required for Bowdens to indicate whether an impact on local residents would be considered or not?	Mick Boller	Bowdens Silver Pty Limited	Finalised	Bowdens Silver has committed to addressing all relevant environmental issues that could affect the rural residents around the Mine Site and Lue village residents. Each issue will be covered in sufficient detail in the EIS to enable local residents and representatives from Government agencies to understand the likely level of impact.																																																													
19	Meeting 6	27-Jun-19	What are Bowdens' air quality modelling criteria for the mine, and what's the average period (weekly/monthly/annual)?	Mick Boller	Bowdens Silver Pty Limited	Finalised	The adopted assessment criteria against which the modelling results have been assessed are presented in the following table. These assessment criteria are adopted from the Modelling and Assessment of Air Pollutants in New South Wales published by the NSW EPA in 2016. These criteria are also consistent with the National Environment Protection (Ambient Air Quality) Measure published by the National Environment Protection Council (NEPC) in 1998 and updated in 2015. Further background on the sources and application of these criteria will be provided within the Air Quality Assessment report. Assessment Criteria for Particulate Matter (PM) <table border="1"> <thead> <tr> <th>PM Metric</th> <th>Averaging period</th> <th>Concentration (µg/m³)*</th> </tr> </thead> <tbody> <tr> <td>Total Suspended Particulates</td> <td>Annual</td> <td>90</td> </tr> <tr> <td rowspan="2">PM₁₀</td> <td>24 hours</td> <td>50</td> </tr> <tr> <td>Annual</td> <td>25</td> </tr> <tr> <td rowspan="2">PM_{2.5}</td> <td>24 hours</td> <td>25</td> </tr> <tr> <td>Annual</td> <td>8</td> </tr> </tbody> </table> <p>* (µg/m³) micrograms per cubic metre</p> Assessment Criteria for Dust Deposition <table border="1"> <thead> <tr> <th>Metric</th> <th>Maximum Increase in Dust Deposition</th> <th>Maximum Total Dust Deposition Level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust (assessed as insoluble solids)</td> <td>2 g/m²/month**</td> <td>4 g/m²/month**</td> </tr> </tbody> </table> <p>** g/m²/month = grams per square metre per month</p> Assessment Criteria for Metals/Metalloids Assessed for the Bowdens Silver Project <table border="1"> <thead> <tr> <th>Substance</th> <th>Averaging period</th> <th>Concentration (µg/m³)</th> </tr> </thead> <tbody> <tr> <td>Arsenic and compounds</td> <td>1-hour (99.9th percentile)</td> <td>0.09</td> </tr> <tr> <td>Cadmium and compounds</td> <td>1-hour (99.9th percentile)</td> <td>0.018</td> </tr> <tr> <td>Copper</td> <td>1-hour (99.9th percentile)</td> <td>18</td> </tr> <tr> <td>Chromium III and compounds</td> <td>1-hour (99.9th percentile)</td> <td>9.0</td> </tr> <tr> <td>Chromium VI and compounds</td> <td>1-hour (99.9th percentile)</td> <td>0.09</td> </tr> <tr> <td>Lead</td> <td>Annual (100th percentile)</td> <td>0.5***</td> </tr> <tr> <td>Manganese and compounds</td> <td>1-hour (99.9th percentile)</td> <td>18</td> </tr> <tr> <td>Mercury organic</td> <td>1-hour (99.9th percentile)</td> <td>0.18</td> </tr> <tr> <td>Mercury inorganic</td> <td>1-hour (99.9th percentile)</td> <td>1.8</td> </tr> <tr> <td>Nickel and compounds</td> <td>1-hour (99.9th percentile)</td> <td>0.18</td> </tr> <tr> <td>Silver</td> <td>1-hour (99.9th percentile)</td> <td>1.8</td> </tr> <tr> <td>Zinc (as zinc oxide)</td> <td>1-hour (99.9th percentile)</td> <td>0.09</td> </tr> </tbody> </table> <p>*** Cumulative concentration including background and predicted increase.</p>	PM Metric	Averaging period	Concentration (µg/m ³)*	Total Suspended Particulates	Annual	90	PM ₁₀	24 hours	50	Annual	25	PM _{2.5}	24 hours	25	Annual	8	Metric	Maximum Increase in Dust Deposition	Maximum Total Dust Deposition Level	Deposited dust (assessed as insoluble solids)	2 g/m ² /month**	4 g/m ² /month**	Substance	Averaging period	Concentration (µg/m ³)	Arsenic and compounds	1-hour (99.9 th percentile)	0.09	Cadmium and compounds	1-hour (99.9 th percentile)	0.018	Copper	1-hour (99.9 th percentile)	18	Chromium III and compounds	1-hour (99.9 th percentile)	9.0	Chromium VI and compounds	1-hour (99.9 th percentile)	0.09	Lead	Annual (100 th percentile)	0.5***	Manganese and compounds	1-hour (99.9 th percentile)	18	Mercury organic	1-hour (99.9 th percentile)	0.18	Mercury inorganic	1-hour (99.9 th percentile)	1.8	Nickel and compounds	1-hour (99.9 th percentile)	0.18	Silver	1-hour (99.9 th percentile)	1.8	Zinc (as zinc oxide)	1-hour (99.9 th percentile)	0.09
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20	Meeting 6	27-Jun-19	As there is no safe threshold for Pb and PM2.5, and similarly no safe threshold has ever been established for the other toxic metals – how will Bowdens know they will not exceed the Zero dust deposition as claimed?	Mick Boller	Bowdens Silver Pty Limited	Finalised	It should be clarified that Bowdens Silver has not made a claim of zero dust deposition. Most day to day and essential activities, such as driving a motor vehicle on unsealed roads, using combustion heaters or electricity, ploughing fields for crops, etc. result in the generation of particulate matter (and metals, such as lead, being attached to or forming the mineralogy of the particulates). If no threshold criteria are applied, in order for there to be no health impacts, all activities would be required to generate zero particulate matter. Clearly, this is not feasible for our day to day essential activities. Similarly, it would not be feasible to operate any mine or extractive activity, which are also essential for the provision of our society's infrastructure and services, with zero emissions. In light of the above, a realistic approach must be applied which includes setting threshold criteria for both Pb and PM2.5. The threshold criteria, as stated in response to Item 19, have been determined by the NSW EPA and the NEPC. The NSW EPA provides the following summary of how these standards are derived in their 2015 <i>Fact Sheet – National Environment Protection Measures (NEPMs)</i> . <i>"How are the standards derived?"</i> <i>The standards are developed based on scientific understanding of the substances and interactions with the environment. Government agencies nationally, along with industry and academic experts, advise on the development of the standards, providing technical advice and achieving consensus on the appropriate levels. Due to the thorough nature of the process, the resulting standards are generally very conservative."</i> In addition to simple comparison against these criteria, a Human Health Risk Assessment (HHRA) is being prepared for the Project. The HHRA will consider both the short and long-term health effects using a range of conservative assumptions including the exposure levels, duration of exposure, the individuals within the population most at risk etc. to quantitatively assess the potential health outcomes as a result of the predicted emissions from the Project. It is the consideration of these health outcomes which will provide a sensible assessment of the potential impacts from the Project. The preliminary results from the HHRA indicate that the risks to the community from metals (including lead) would be negligible. Further details will be provided as part of the completed HHRA.																																																													
21	Meeting 6	27-Jun-19	Is Bowdens willing to participate in a public medical debate with professional medical consultants in the fields of clinical pharmacology, general medicine/kidney diseases, neurology, and paediatrics?	Mick Boller	Bowdens Silver Pty Limited	Finalised	Bowdens Silver has commissioned a health risk assessment and lead assessment for the Project that are informed by a range of technical studies relating to air quality, surface water and groundwater. Furthermore, Bowdens Silver has also commissioned a peer review of both assessments to ensure that the data relied upon and conclusions reached are valid and appropriate. As a component of the EIS, the health risk assessment and lead assessment for the Project will be studied in detail by the medical professionals within NSW Health. Should these professionals have any questions regarding the assessments provided, there will be an opportunity through the Response to Submissions process administered by DPIE, to discuss relevant medical issues.																																																													

22	Meeting 6	27-Jun-19	Regarding the tailings dam – will Bowdens be following the international standards set by the International council on mineral and metals?	Mick Boller	Bowdens Silver Pty Limited	Finalised	<p>The Bowdens Silver tailings storage facility (TSF) is presently in the design stage and once approved would be a prescribed dam under the NSW Dam Safety Act 1978. As a prescribed dam, oversight of the final TSF design, operation and management would be conducted by the NSW Dam Safety Committee (DSC), a statutory body whose function is to ensure the safety of prescribed dams within NSW.</p> <p>Therefore, the DSC's "Tailings Dam Guidelines" apply to the Bowdens Silver TSF. These guidelines note that owners of prescribed tailings dams must comply with the provisions of the relevant design chapters of the Australian National Council on Large Dams' (ANCOLD) documents:</p> <ul style="list-style-type: none"> • "Guidelines on Dam Safety Management"; and • "Guidelines on Tailings Dams". <p>ANCOLD is a member of the International Commission on Large Dams (ICOLD) and prepares and issues guidelines which represent best engineering practice. These guidelines have been developed to share best Australian practice for tailings dams and are widely used across Australia and elsewhere.</p> <p>Bowdens Silver recognises that, on 27 March 2019, the International Council on Mining & Metals (ICMM), the United Nations Environment Programme (UNEP) and the Principles for Responsible Investment (PRI), announced they would co-convene a global review to establish an international standard on tailings storage facilities by the end of 2019.</p> <p>However, the review (and associated standard) will not cover detailed technical design criteria for tailings dams which are already covered by organisations such as ICOLD and by extension, ANCOLD.</p> <p>Therefore, with regard to the design of the TSF, Bowdens Silver and its design team will continue to be guided by the DSC and ANCOLD whilst also awaiting the positions taken by the DSC and ANCOLD with respect to the outcomes of the ICMM, UNEP and PRI review and the adoption of any standards that may result.</p>
23	Meeting 6	27-Jun-19	Bowdens states in its brochure that impact assessment outcomes that seepage from the TSF and lined waste rock emplacement would be collected and recycled and reused in processing. How is seepage collected? A low permeability compacted clay liner would limit seepage from TSF, so what does Bowden exactly mean with the limit? On the map they only identify non-acid forming rock, not waste rock that is potentially acid forming.	Mick Boller	Bowdens Silver Pty Limited	Finalised	<p>Due to the potentially acid forming nature of the stored tailings and waste rock, the Bowdens Silver tailings storage facility (TSF) and waste rock emplacement (WRE) would be underlain by low permeability</p> <p>The purpose of the liners is to intercept any water that has been in contact with the stored materials (known as decant in relation to the TSF and leachate in relation to the WRE) which may migrate vertically (downwards) through the stored material, to prevent it from entering the local groundwater system (seepage). The key driver of seepage is the elevation difference between the stored water and the surrounding ground. As a result, if there is no water stored then seepage would not require consideration.</p> <p>As noted in ANCOLD's "Guidelines on Tailings Dams", seepage from TSFs may potentially occur through the embankment, foundation and/or floor of the impoundment with the amount of seepage loss greatly influenced by the permeability of the tailings themselves, which in many cases is low. As the Bowdens Silver TSF would store both tailings and water adjacent to the embankment (decant pond), the TSF design therefore considers the possibility of seepage through the embankment and foundations. Consequently, the TSF design includes a seepage collection system under the TSF embankment that would discharge into a drain and collection pond on the downstream toe of the TSF embankment. All collected seepage would then be pumped back to the decant pond. In addition, seepage potential from the proposed decant pond would be further limited by the installation of a bituminous geomembrane liner on the upstream face of the TSF embankment, compacted clay liner beneath the decant pond and a grout curtain installed adjacent to the upstream toe of the TSF embankment up to a depth of 40m below ground level, where required.</p> <p>With regard to the WRE, the preliminary design incorporates a high density polyethylene (HDPE) liner, anchored to the upper, lower and intercell embankments underlying each of the seven cells. Due to the underlying topography of the WRE, all leachate generated by rain falling onto the potentially acid forming waste rock placed in the active WRE cell would be intercepted by the HDPE liner and directed to the lowest point in the active cell via gravity. An inlet to a closed pipe would be installed at these low points to convey all leachate to the lined leachate management dam. As the leachate collection system would transfer all leachate to the leachate management dam, this would limit the potential for seepage from the WRE. Bowdens Silver also proposes to progressively rehabilitate the completed WRE cells in order to reduce the potential for leachate generation from the WRE.</p> <p>In addition, and in order to reduce the potential for seepage from the leachate management dam, Bowdens Silver would line the leachate management dam with HDPE and recycle all collected leachate by pumping it to the processing circuit, thus reducing any elevation difference between the stored leachate and the surrounding ground.</p> <p>As both the TSF and WRE are currently in the design stage, subject to the receipt of development consent, Bowdens Silver would commission, further geotechnical investigations to inform seepage management and mitigation as part of the detailed design stage prior to construction of the TSF and the WRE.</p>

24	Meeting 8	27-Feb-20	How much water is coming out of the Lawson Creek Valley	Tom Combes	Bowdens Silver Pty Limited	Finalised	<p>The Lawsons Creek Valley is for the purpose of this response considered to cover the Lawsons Creek Catchment. It is important to recognise that the Project would not directly source any water from Lawsons Creek. In fact, arrangements have been made to construct a water supply pipeline to avoid the need to use water from local sources in this manner.</p> <p>The Surface Water Assessment for the Project prepared by WRM Water and Environment discusses the Lawsons Creek Catchment (see Section 3.4 and Figure 3.4 of WRM, 2020). WRM notes that Lawsons Creek has a catchment area of approximately 507km² to the Cudgegong River confluence (near Mudgee). However, for the purpose of assessment, an area of 272km² has been considered which is the catchment area to the confluence with Walkers Creek. At its peak, the catchment of the Mine Site would cover 550ha or approximately 2% of the catchment area to the confluence with Walkers Creek (this may be compared with total surface disturbance of 422ha). The bulk of the much larger Lawsons Creek Catchment has been altered (cleared) to support agricultural activities. While higher flows may be expected given the large size of the catchment, the majority of this water is captured on farm dams or diverted. It is also worth noting that historic agricultural activities have impacted water quality in Lawsons Creek. Average flows in Lawsons Creek downstream from Hawkins Creek are estimated at 7 136ML per annum.</p> <p>The water supply requirements for the Project and volume of water that would be sourced from within the Mine Site are presented in detail in Section 5.5 and Table 5.5 of WRM (2020). In summary, the modelling undertaken by WRM estimates that an average annual input of 1,526ML of water would be sourced from the Mine Site which includes water sourced from capture of rainfall, from groundwater bores or inflow to the main open cut pit and moisture contained in the ore materials. A large component of the water required would be sourced from groundwater or runoff that does not enter Lawsons Creek and therefore is not a direct impact to creek condition. The loss of water attributable to the Project that would otherwise flow to Lawsons Creek is 88ML per annum at a peak (downstream of the confluence with Hawkins Creek) or 1.2% of annual flow in this location. Downstream of the Walkers Creek confluence, the quantity of water that would otherwise flow to Lawsons Creek would be 188ML or 2.2% of annual flow in this location (see Section 8.4 and Table 8.1 of WRM, 2020).</p> <p>It is worth noting that Bowdens Silver has focused on opportunities for water reuse and recycling on the Mine Site through the capture and use of sediment laden water in dams, groundwater and surface water that accumulates in the open cut pit and decant water from the TSF. 40% of all water used would be recycled for use in processing and other site requirements. It is stressed that Bowdens Silver has prioritised use of water that would be sourced within the Mine Site as this is water that would need to be managed on site regardless of its final use and therefore it is considered beneficial use of the water available. For example, the groundwater inflows to the open cut pit occur as the ore material is extracted and the water needs to be managed to permit ongoing extraction. This water would be pumped to the raw water dam and used in processing as a preference over water supplied externally. In this manner, every effort has been made to be efficient with water use and where it is sourced, provide for multiple sources so there is contingency in the system and reduce reliance on water that may otherwise be used by landholders within the Lawsons Creek Valley.</p> <p>Further information on the licensing requirements and site water balance may be found in the recorded presentation summarising the outcomes of the Surface Water Assessment available from the Bowdens Silver Website. Michael Batchelor of WRM directly responds to a similar question in that presentation.</p>
25	Meeting 8	27-Feb-20	How many times they visited Barra Road and at what time of year, regarding orchids	Bradley Bliss JP	Bowdens Silver Pty Limited	Finalised	<p>The field survey was undertaken by the ecology consultant in April 2019. Two species of threatened orchids were identified as requiring further assessment at the time. The survey that followed did not detect presence of the orchids in the area, nor are there historical records of presence in the area. It was noted that one of the orchid species is sensitive to the effects of grazing, indicating presence is unlikely. The consultant concluded that these orchid species are unlikely to be present in the area, and no further assessment was necessary.</p>