Meeting:	Bowdens Silver Project CCC – Meeting 15
Date:	Thursday 27 October 2022
Location:	Bowdens Silver Offices, 68 Maloneys Road, Lue
Time:	5.00 – 7.00pm (Scheduled) 5.06 – 7.08 (Actual)
Independent Chair:	Darryl Watkins (DW)
Attendees:	Blake Hjorth, Bowdens Silver (BH) Tom Purcell, Bowdens Silver (TP) Tom Combes, Community Member (TC) Sally Dryburgh, Community Member (SD) Sonia Christie, Community Member (SC) John Lydiard, Community Member (JL) Nick Warren, RW Corkery and Co (NW) Guest Speaker
By Videoconference	Steve O'Donoghue, Dept of Planning (SO) Guest Speaker Rose-Anne Hawkeswood, Dept of Planning (RH) Guest Speaker
Apologies:	Bradley Bliss J.P, Wellington Valley Wiradjuri Aboriginal Corporation (BB) Phillip Freeman, Community Member (PF) Cr Robbie Palmer, Mid-Western Regional Council (RB) Mick Boller, Lue Action Group Representative (MB)

Welcome and meeting rules (DW)

DW welcomed all members and reported on the apologies. DW reiterated the usual process that CCC members refrain from asking questions during the presentation and that CCC members raise their hands, DW will keep an ongoing list and he will work through the questions in an orderly fashion.

Code of Conduct & Pecuniary / non-pecuniary interests (DW)

DW reinforced the Code of Conduct and emphasized the CCC members and guest speakers should respectfully engage with each other. DW indicated that we want an atmosphere of open and constructive discussion.

There were no pecuniary or non-pecuniary interests identified for the meeting.

Previous meeting 14 – Action Items (DW)

DW reported that the previous meeting's Action Items were distributed to all CCC members via email in a letter from Corkery's (NW). DW complimented NW on the responses as they were very detailed. DW reported back that he did follow up with DPE regarding the difficulty in deciphering the submissions on the DPE website. DW requested SO report on the problem.

SO explained that submissions were aggregated because that is how the IT system has been set up and the department is aware of the inconvenience this can cause in navigating the submission process. It is an IT problem to be rectified in the future.

ACTION ITEMS

ACTION ITEM 1. An explanation of the runoff coefficient utilised for vegetated landscape - NW.
ACTION ITEM 2. Explanation of the formula used to calculate runoff for Table 5.11.b in the updated appendix. In particular, what the rainfall level used in this table was? - NW.

Bowdens Silver Project Water Supply Amendment – Response to Submissions update (NW)

Nick Warren from RW Corkery and Co provided a detailed presentation to the CCC. The headings of each of the slides are below. A complete copy of the slide presentation is in Attachment A.

1. Heavy Rainfall Events
2. Heavy Rainfall Events (cont'd)
3. Questions on Notice
4. Questions on Notice (cont'd)
5. Monthly Average Summer Rainfall
6. Water Supply Submissions Report
7. Harvestable Rights Order 2022
8. Harvestable Rights Order 2022 (cont'd)
9. GHG Emissions
10. Chart re Emissions

The Chair thanked Nick Warren for the report and requested CCC members hold onto their questions until after the Department of Planning and Environment update.

Department of Planning and Environment Update

The Chair welcomed the Departmental representatives to give an update to the CCC on the next steps in the assessment process for the project.

SO Department has received the response to submissions to the Water Supply Amendment and is working through the report. Department will go back to seek feedback from NSW government agencies and seek further information and clarification from their independent water experts. The Department is hoping to put forward a recommendation to the Independent Planning Commission (IPC) before Christmas 2022. Once the IPC receives the department's recommendation then the process is handled by the IPC which includes a public hearing and receiving further submissions on the project. A public hearing will be very unlikely this year. The timing of a public hearing is in the hands of the IPC.

The Water Experts the Department will be using are:

1. Hugh Middlemiss of Hydrogeologic (groundwater)
2. Sophie Pape of Earth Systems (AMD and Surface Water)

SC In regard to the public hearing, where will the hearing be held?

SO Post covid meetings/public hearings are held locally. This project is an IPC decision. Once a project receives 50 submissions, the project then becomes an IPC decision.

TC When will we know the names of the IPC members?

SO The IPC usually makes that decision about 3 days after the referral.

DW Is there an indicative timeframe from referral to a decision?

SO The benchmark is 12 weeks from the referral however the 'clock will be stopped' over the Christmas break and the IPC can also request an extension to seek further information or clarification.

TC How does the public hearing work?

SO The IPC will notify all members of the community who have made a submission about the project, and this notification will include the time, date, and location of the public hearing. Public hearings for the complexity of this project are usually held over 1-2 days. Written submissions are accepted up to a week after a public hearing. All submissions are made public. The IPC will generally meet with all special interest groups, and the proponent and usually schedule a project site visit.

Q&A and Discussion

SC In regards to the recent heavy rainfall event, are you certain that the pumps could cope with this volume of water?

NW Yes, there is a detailed design process to determine pump size. We believe we will be able to manage significant rain events.

TC The 'runoff coefficient' is 0.75 does that mean 75% of rainfall will end up in the dam? 856 MLs is a significant number. If you are incorrect on that figure, then there will be insufficient water to operate the mine.

NW The number is selected by our consultants based on their experience with similar Projects, qualifications, and best practices. The figure of 0.75 is a conservative number and we design the water expectations on that figure. Obviously, less runoff occurs in a vegetated landscape.

Further discussion and detailed analysis of the figures ensued.

ACTION ITEM. NW to provide an explanation of the runoff coefficient utilised for the vegetated landscape.

TC Despite the figures in your table I have records indicating we received 325mls in 18 hours in 2003 – nearly triple your figures. Will the tailings dam cope? This is why you should have utilised local data.

NW Yes. Our data shows that the tailings dam will cope.

DW From memory, Tom, the offer was made to use your local rainfall data from Lue Station – the offer is still open I understand to provide this local rainfall data.

JL If you have low rainfall, does that equal low runoff?

NW Yes. Based on the coefficient, the conclusion considered the worst-case scenario of low rainfall and that is what we plan for in our assumptions.

A detailed discussion then occurred around the water balance tables (Table 5.11.b) in the response to submissions. Including the percentage difference between a low runoff year and an average year and the amount of water used for dust suppression.

TC Your figures indicate that in a high rainfall year, runoff is at 883 MLs. But there is only a 14% drop in a low rainfall year. My records indicate there could be an 80% drop in rainfall. Where does the water come from in a low-rainfall year?

NW What is relevant here is not the rainfall but the runoff.

JL What is the average rainfall figure you are using?

NW 652MLs is the median figure.

JL We have received 1200 MLs in the last 12 months – that is a significant variation.

NW The modelling assessment included years that were higher than this year in predicting impacts. Higher rainfall was experienced in the 1950's and that was including in the assessment. The assessment considered the the runoff, not rainfall – that is the standard process. Runoff is the volume of water that is captured and does not include rainfall what may infiltrate into the ground or cling to vegetation. Not all rainfall becomes runoff, unless it falls on a dam.

TC If you don't get the rainfall, where does the water come from?

NW Storage, recycling, groundwater bores. Our assessment concludes that under extreme water conditions (drought and extreme rainfall), the mine can still operate.

DW I just wish to interrupt this discussion to check in with Steve and Rose-Anne from the Department on their timing /availability for the rest of the meeting, as they may have other commitments. In fairness, they joined this CCC meeting at short notice and their attendance is much appreciated.

SO Thanks Darryl. We need to leave this meeting now, but what this discussion has indicated and reinforced is that managing water on-site is obviously the key issue for the assessment.

DW Just before SO and RH leave the meeting, I wish to advise the CCC that after five and half years as the Independent Chair of the Bowdens Silver Project CCC, I will be resigning from the committee at the end of November 2022. I have thoroughly enjoyed the experience.

BH On behalf of the company, thank you very much Darryl for your contributions these past years.

DW Steve, I'm just checking the process and the way forward with you. As the project is to be assessed by the IPC shortly, I am assuming there is now no need for the CCC to meet until a decision is made by the IPC.

SO The process from here, once our recommendation is forwarded to the IPC, the IPC will manage the assessment and process, and therefore it would be futile for the CCC to meet whilst this assessment by the IPC is progressing.

SO and RH left the meeting at 6.34pm.

DW Having two processes, such as the IPC assessment and the CCC in tandem would not be beneficial. Let's continue on the water discussion.

TC We are looking at these charts, so much water from rainfall, runoff, bores, clean water harvesting, plus the water usage. They are good useful tables for the community. But if there is 80% less rainfall, how is it that there is only a 14% drop in usable water?

NW We have modelled scenarios for high, medium and low rainfall/runoff.

Further discussion on the technical aspects of the data ensued

ACTION ITEM: Explanation of the formula for Table 5.11.b in the updated appendix. In particular, what the rainfall level used in this table was?

TC If you only get 300MLs of rainfall and low runoff, I don't see how every table has the lowest amount at 740MLs?

NW It is about the balance. Water is already in the system. Dams have water in them at the end of the year.

JL There doesn't seem to be much change in the water at the extremes of high and low rainfall. For example, Table 5.8 – Water Reliability. How are those figures arrived at? We need some simple explanations of how really wet and really dry years are managed.

SC The community is worried the water cannot be contained on site. With the saturated ground, recent runoff has been unbelievable.

BH The mine is designed to cope with exactly those issues.

NW The modelling is peer-reviewed plus the Department uses its own water experts to review.

SC Has the 66Kw power line route been finalised?

NW No, GHD is completing the assessments and when it is finalised we will submit an application to Endeavour Energy.

SC If you get approval for the mine but no electricity, what happens?

NW The mine cannot operate without power.

SC What is the final product that is sold?

BH There are 2 concentrates. One is a silver-lead concentrate, the other is a zinc concentrate.

JL You have creek water licences, do you intend to use them to draw down water?

NW Because of the location of the dam, the licence is to account for water not going into Lawson's creek.

JL If the creek is not flowing, what happens to the licence?

NW Each licence has its own conditions.

TC In the past, you have stated that there will be no impact on downstream flows.

NW No. That is not a fair conclusion. Drawdown concepts have hardly changed, and we are de-watering earlier.

Further discussion occurred on water licences, vegetation disturbance and sediment control.

DW These are very complex issues and as we are short on time, I suggest a separate session between NW, BH, JL and TC to explore those issues.

BOWDENS COMMUNITY CONSULTATION UPDATE.

BH The community is getting in touch with us in relation to 1) jobs, 2) next steps, and 3) further questions regarding the project. We encourage and welcome this interaction with the community. We are having a Community Open Day on-site on Saturday, 5 November, and further drop-in sessions in Mudgee on Monday, 7 November, and Rylstone Tuesday, 8 November. All CCC members should have received this information and notification.

GENERAL BUSINESS

TC Darryl we are sorry to see you go, and thanks for your independent chairing of the CCC, especially when you picked this CCC up at a difficult and contentious time all those years ago.

DW Thank you to CCC members and Bowdens. I have enjoyed my time chairing these meetings and I hope I have helped in assisting to inform the community through this complex assessment process. I appreciate the contributions you, as CCC members, have made to this committee. As the Department has outlined, it makes no sense for the CCC and IPC to operate in tandem, but after a decision has been made on the project, whether a CCC is required or not will be a matter for the Department.

Meeting closed at 7.06 pm

BOWDENS SILVER

R.W. CORKERY & CO. PTY. LIMITED

Community Consultative Committee

Bowdens Silver Project

State Significant Development SSD 5765

Community Update

27 October 2022

Heavy Rainfall Events

- The region has experienced significant rainfall in the past month. Lue Road has been cut off in places and access difficult.
- Section 4.62 of the SWA states the following:

  The proposed design storage capacity would be sufficient to contain runoff resulting from the 1 in 20 AEP 72-hour design storm (with a design volumetric runoff coefficient of 0.75) (equivalent to 1.2 ML/ha). In addition, sediment storage equivalent to 50% of the water storage capacity would be provided with each dam. Pumping infrastructure would be provided to enable the water to be transferred into the containment system within 5 days.

- In short, each of the dams in the ESC Zone is sized to provide capacity for the 5% AEP (one in 20 year) 72-hr storm. We have then provided an additional 50% capacity to ensure containment via the sediment storage zone.
- Our aim was to over-design these to ensure capacity for storm events.

Heavy Rainfall Events

- Based on the recorded site (Met01) rainfall data for this year to date, the highest rainfall was in early July 2022:
  - Max 72-hour (3-day) rainfall = 140.2mm
- This maximum recorded 72-hour site rainfall (140.2mm) does not exceed the rainfall design event criteria for the:
  - TSF minimum storm storage allowance (211mm, plus 0.5m freeboard)
  - Leachate management dam (217mm, plus 1m freeboard)
  - Processing plant dams (345mm)
  - Sediment dams (157mm)
- The TSF, Leachate Dam and Processing Plant Dams are designed to accommodate a 1% AEP storm event.
- It is worth noting that the design approach has been highly conservative, sediment dams have a 50% sediment storage zone that would rarely be full and pumping infrastructure would used proactively to keep water levels low.
- Therefore, even the recent heavy rainfall conditions would not cause discharge from the Mine Site.

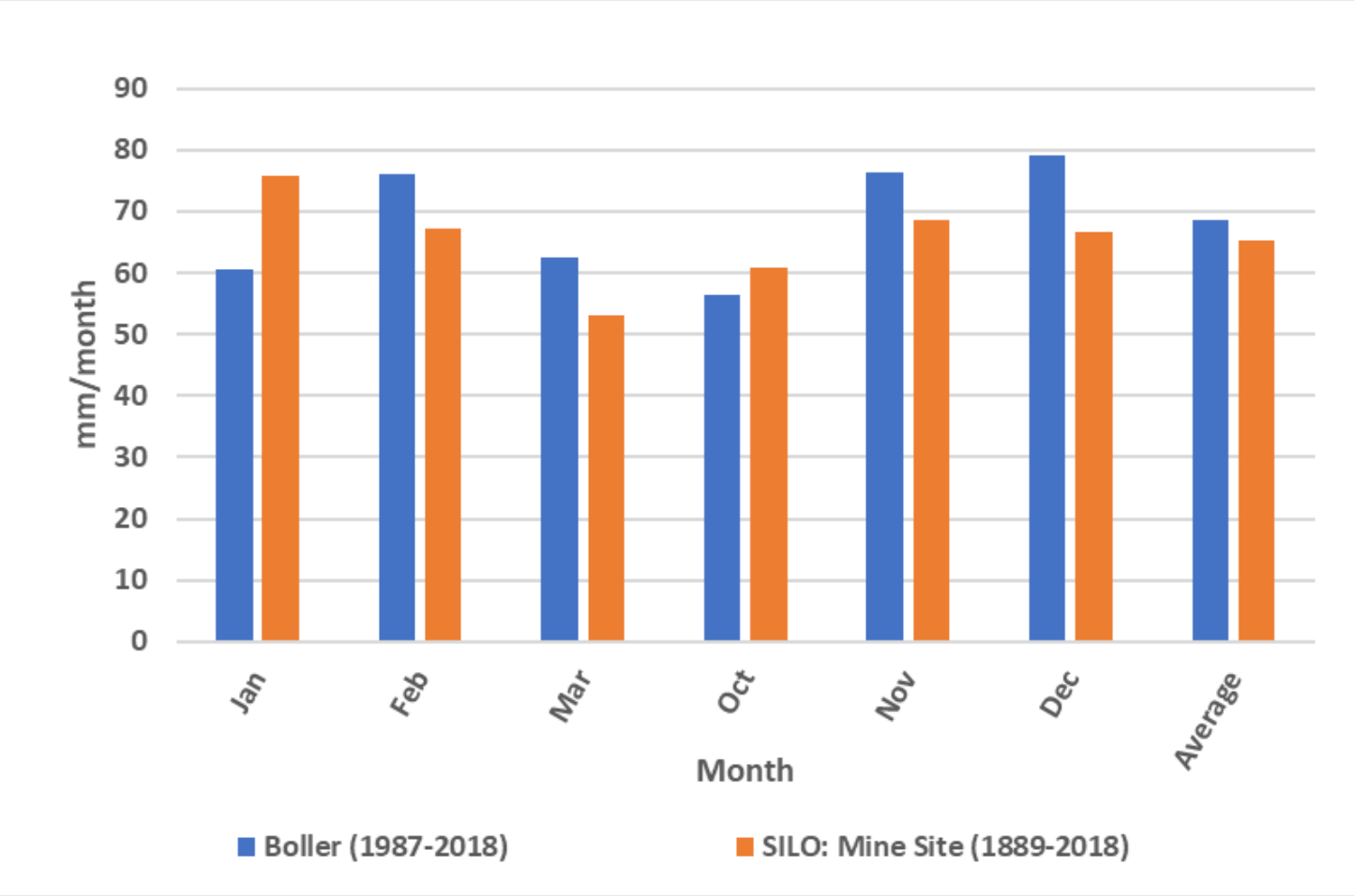
Questions on Notice

- Possible influence of exclusion of 2019 on outcomes.
  - 99% of annual rainfall in the data up to 2018 would exceed 330mm/year, with a slightly lower 319mm/year when 2019 was included. This is a 4% difference in likely rainfall available and would not change the outcomes of assessment.
- Justification for rainfall level used in low rainfall scenario
  - It is noted that the scenario is low runoff rather than low rainfall and WRM assessed the volume of water that is capable of being captured rather than the rainfall level.
  - The low runoff scenario applies historical rainfall patterns obtained from the SILO database but assumes that less water is collected in storages (dams) for Project-related use. This is why the low runoff scenario results in a 14% reduction in water availability.
- Review impacts to water users under low rainfall scenario assessment
  - No change to conclusions of assessment as this was the scenario assessed.

Questions on Notice

- Modelled average summer rainfall? Is it 450mm for 6 summer months?
  - The average summer monthly rainfall for the six-month period from October through March, as derived from the SILO dataset used for modelling was 392.4mm.
- Modelled monthly average 75mm per month in summer?
  - The average summer monthly rainfall from the SILO dataset used for modelling was 65.3mm/month. Figure A also presents the averages recorded by the CCC member over the period 1987 to 2018.

- Monthly Average Summer Rainfall: Mine Site SILO (1889 – 2018) and CCC Member (1987 – 2018)



Water Supply Submissions Report

- Document responding to community submissions on the water supply amendment report is complete.
- There are no outstanding queries from NSW Government agencies, though we are continuing to address questions from DPE as they progress their assessment of the Project.
- RTS document presented the outcomes of our review of the recent update to the NSW Harvestable Rights Order and GHG emission generation for the Project.
- A detailed response was provided to the submission prepared by Ms Shirleen Baguley on behalf of the Lue Action Group.
- Community submission themes were also addressed including matters not relating to water supply.

Harvestable Rights Order 2022

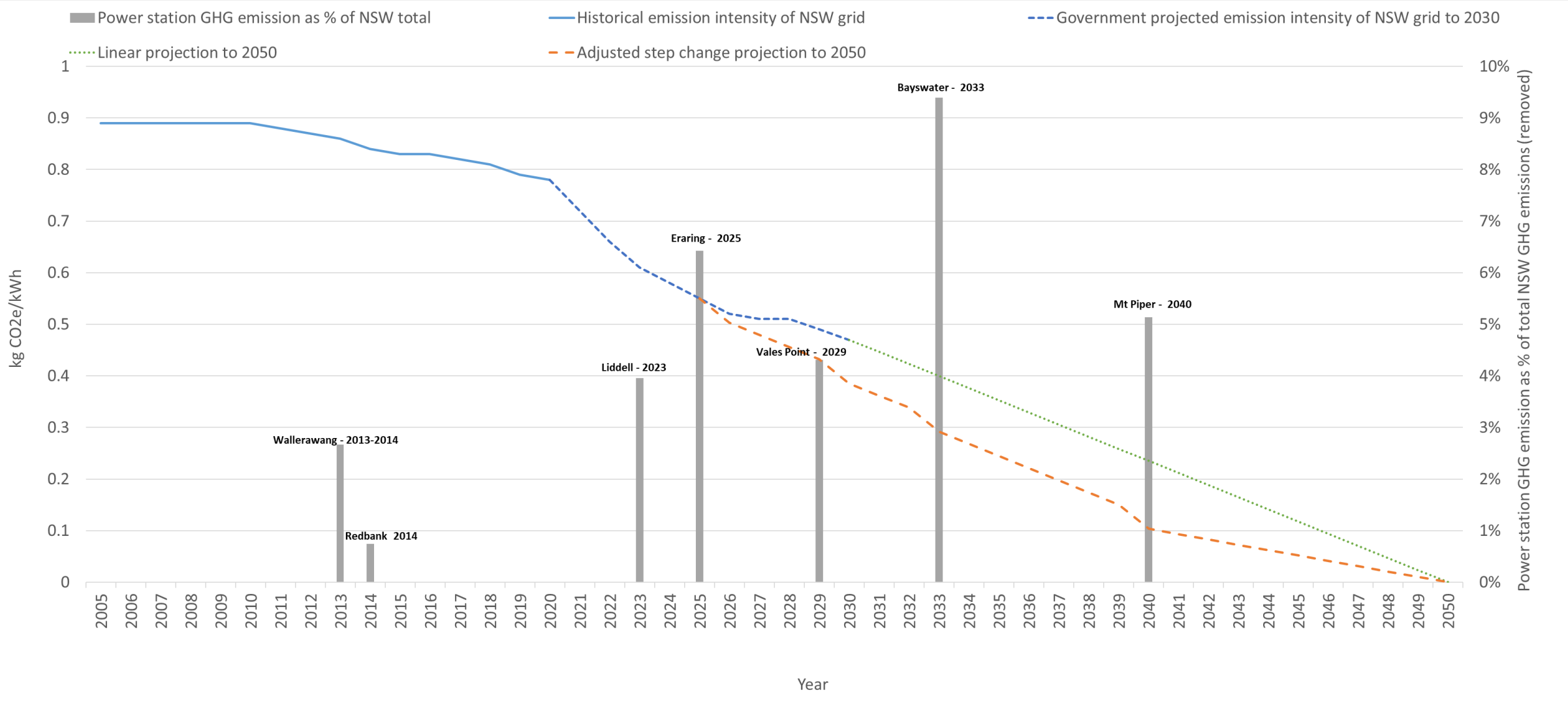
- In May 2022 the Harvestable Rights Orders were amended to include a provision that prohibits water transfer from harvestable rights dams to excluded works or other dams in the landholding.
- Bowdens Silver was proposing to transfer water from harvestable rights dams as part of the integrated water management and supply strategy.
- This has necessitated a change to the strategy as follows
  - The 130ML water storage dam within the main open cut pit could no longer be used for transfer and storage of water from harvestable rights dams.
  - Water captured in harvestable rights dams would be drawn directly for dust suppression use (through a standpipe at the relevant dams) or the water would be transferred directly to the processing plant, bypassing the need for storage.
  - Water captured in harvestable rights dams may be pumped to a holding tank located within the processing plant area for short term storage as tanks are not classed as ‘excluded works’.

Harvestable Rights Order 2022

- WRM was commissioned to update the Mine Site water balance modelling to assess the impact of this change.
  - Given the need for additional modelling, WRM utilised SILO data that included 2019, 2020 and 2021 rainfall.
  - The updated modelling indicates more water available (on average) for use at the Mine Site.
  - Therefore, outcomes for water supply reliability are improved.
  - There has been no change to the conclusions of the surface water assessment for the Project. That is, the Project would negligibly reduce downstream flows in both Hawkins and Lawsons Creeks through the interception and retention of runoff within the Mine Site and a reduction in baseflow in both creeks.
- In reviewing the SILO data WRM identified that Figures 3-1 to 3-3 of the Surface Water Assessment presented incorrect data. Whilst more conservative SILO data was used in the modelling and assessment of impacts, the data used in the figures incorrectly indicated higher average and monthly rainfall.

GHG Emissions

- Updated modelling of the GHG emissions generated by the Project indicate a substantial reduction in Scope 2 GHG emissions since the publication of the EIS.
- A 54% reduction in Scope 2 GHG emissions is expected due to decarbonisation of the electricity grid between now and 2050 largely driven by the closure of coal-fired power generators.
- This reduction requires no action from Bowdens Silver.
- Should Bowdens Silver proceed to develop a small (12.4MW) solar farm (through an application to Council), the Scope 2 GHG emissions would decrease by 72%. This is roughly equivalent to 35% purchase of green power.


Power station GHG emission as % of NSW total
Historical emission intensity of NSW grid
Government projected emission intensity of NSW grid to 2030
Linear projection to 2050
Adjusted step change projection to 2050
kg CO2e/kWh
Power station GHG emission as % of total NSW GHG emissions (removed)
Year
Wallerawang - 2013-2014
Redbank 2014
Liddell - 2023
Eraring - 2025
Vales Point - 2029
Bayswater - 2033
Mt Piper - 2040

Questions?