

GPM

Minutes of CCG Meeting

24 July 2024

Barton Centre Conference Centre
Wallerawang

Present:

Steve Saladine, General Manager, GPM (SS)
Paul Glasson, Site Manager (PG)
John Pola, Manager Safety and Environment & (JP)
Carol Cropper, Pursuit Communications (CC)
Karen Simpson (KS)
Bernadette Ryan (BR)
Paul Curran (PC)
Graham Johnson (GJ)
Ross Guihot (RG)

Apologies:

Morgan Starkey (MS)

Minutes:

1. CCG members arrived at 6pm.
2. SS welcomed the group and introduced the other speaker, John Pola (JP).
3. SS began his presentation outlining the Agenda for evening, being:
 - Introductions
 - Actions from last Meeting
 - GPM's Activities since last meeting
 - Planned works over next six months
 - Dam Safety Planning and Works (John Pola Environment and Safety Manager)
 - Committee feedback and issues
 - Wrap up
4. SS started his presentation updating the CCG about the Fresh Water Diversions off the dam. They have progressed significantly on the dam diversions with one being finished which took 20 months to complete. The remaining diversions have been modified to be smaller and situated more against the escarpment which will be much more efficient in getting rid of the water.
5. SS informed the group that water treatment is another area that is progressing well. Water now being discharged is now under the clean water regulation level for metals and testing is showing the discharge is actually improving the water quality of the Cox's River. While there is still an issue with sulphate, this is being steadily improved with rethinking how the water is moved around the site. The sulphate levels are covered under GPM's EPA license.

6. SS continued that GPM have continued to secure the ash stockpile which means that all the exposed ash is now covered and the first reinforcing berm is in place. Reinforcement berms will need to be built around the whole perimeter of the stockpile eventually. The project to secure the KVAR Stockpile and finalise the landform will take over a decade given the short supply of suitable engineering fill materials and the rate of work necessary for safe construction.
7. SS said that GPM have been winning material for the site from places like quarries and road works. They have also lowered the area between the dam and where the ash stockpile was. This level was several meters above where it was approved to go down to and the advantage of getting it down to that lower level is that it enables GPM to better control water flow which will now flow via gravity rather than being pumped around. Another area on site that they are using for material is the old Centennial Settling Ponds which are being removed and reused.

The idea of a possible on-site Quarry is now looking unlikely.

SS continued that between 6 and 8 million tonnes of material is required over the next 10 years. This number could be even higher if EPA requirements change.

Following a recent presentation to Lithgow Council, the Council have approached GPM that during the process of reinstating access to Newnes down (Gap Road) Wogan Road that project is going to generate a heap of material which GPM will use as fill.

8. SS said that they were getting on with their investigation of contaminated land which is a process that will run well into next year. GPM is about a third of the way through the drilling and sampling program. Another drilling contractor starts during the next couple of weeks.

The total cost to complete the drilling investigation will be over \$4 million.

So far asbestos has been found in the old mine workings, chemical traces unrelated to power station ash has also been found.

RG asked how deep the capping had to be over asbestos to which SS replied it depends what sort of asbestos it is, which is why they are investigating.

KS informed the group that when asbestos was exposed recently, some Lidsdale residents started spreading very negative rumours about activities being carried out on the KVAR site. SS said that no-one contacted the 1800 number to report their concerns. RG suggested that when something like this occurs again, GPM gets on the front foot and send a communication around the neighbourhood with an explanation. This suggestion was acknowledged and will be considered.

As well as drilling the holes there are also wells that have been put in to assess the groundwater. Drilling needs to be completed at the last property on Maddox Lane. GPM has been unsuccessful in trying to contact the owner to get this done for them. If they are forced by the EPA to test the land themselves it could be an extremely costly project. GPM is prepared to carry out this process for them.

SS asked the group if anyone could assist in communicating this to the owners of the property. BR seemed to know of the owners and said if she saw them she would let them know to contact SS re this undertaking.

Formal EPA approval for the voluntary management program has still not yet been received, but GPM is continuing regardless.

9. SS informed the group that GPM activities over the next 6 months included:

- Continuing fresh water diversions off the ash dam
- Next stabilisation berm against the original dam wall
- Continue with delivery of materials to site
- Expand approval for other waste exempt materials to be accepted on site
- Continuation of site investigations
- Installation of additional monitoring bores and sampling program
- Exploring what cheap bulk materials are viable for filling ash dam

10. JP commenced his presentation on Dam Safety. He explained that Sawyers Swamp Creek Ash Dam (SSCAD) is 40 metres high and full of ash and it is officially a declared Dam under the Dams Safety Act 2015.

Dams Safety NSW (DSNSW) 'declares' dams that can potentially:

- endanger life downstream;
- cause major damage or loss to infrastructure, the environment; or
- have major health and social impacts

A declared dam is given a consequence category based on *potential risk*. A dam is declared by DSNSW if:

- the dam has a wall higher than 15 metres; or if
- DSNSW is satisfied the dam would endanger a person's life, or
- result in a major or catastrophic level of damage or loss *if it failed*

11. JP then showed the group three SSCAD drawings of the dam wall.

12. JP explained that GPM must operate the SSAD to comply with:

- The NSW Dams Safety Act 2015 and the NSW Dams Safety Regulation 2019
- AS 55001; ISO 9001, ANCOLD Guidelines
- Any directions issued by DSNSW and
- The Environment Protection Licence

13. Complying with these regulations entails:

- Dam inspections, tri-weekly, quarterly, annually and 5-yearly
- Measuring everything

- Up-to-date working documents
- An asset management system (MEX)
- Ensure that work on dam is subject to quality management systems
- Continual auditing of Dam Safety Management System and associated documents
- Training
- Have a Dam Safety Engineer on hand for design and advice
- Maintain the dam to the required standards
- Have an approved budget - currently FY24/25, GPM expects to spend over \$4m on Dam Safety Management at Lidsdale

14. In 2022 the SSCAD consequence category went from High C to High A. This changed because GPM was now required to use an updated SSCAD hydrology assessment which included the effects of climate change. Other changes included a different way of estimating the speed of a breach developing which went from 1 hour to 0.5 hour. Also they now had to treat the ash as a non-Newtonian material, meaning it would flow and not slump through a breach like water and more ash would escape the dam.

15. JP then showed the group three flood maps

- Flood Day No Failure
- Sunny Day Failure and
- Flood Day Failure 16. JP explained that:

Flood Day Failure

- the incoming flood got bigger;
- it arrived faster and;
- the embankment overtopped and failed;
- the dam did not fail in previous studies
- when the dam failed, more of the contents of the dam came out than in the Sunny Day failure (including ash)

For Sunny Day failure:

- the outgoing flood got bigger;
- it arrived faster and;
- the Dam failed by piping failure, the same as in all previous studies;
- when the dam failed, the contents of the dam came out quicker, including more ash

17. JP informed the group that Dam Safety Risk Assessment included:

- All credible modes of failure were assessed
- There were around 40 ways the dam could fail from internal erosion or scour
- Twenty-one of the modes of failure were ruled out as not credible

- The rest were assessed to see what effect they may have
 - The two most likely ways the dam might fail were either the embankment overtopping or by transverse embankment cracking.
18. JP went on to explain that basically there is about a 1 in 10,000 probability of the SSCAD failing in any one year. There is a 1 in 10,000 probability of getting struck by lightning over the course of a lifetime, so the odds aren't too bad. Also, that the consequence category assessment assumes that everything goes wrong at the worst possible time, eg whilst the river is in flood.
19. JP outlined what GPM is doing to reduce the probability of dam failure:
- Removing the risk from the embankment cracking
 - Making the spillway deeper - this plan is the favoured way forward and a design has been commenced as it resolves both overtopping of the dam wall and cracking.
- Also, to reduce the risk to people, an early warning system would give time to evacuate if a problem starts to develop. This could either be from a Flood prediction which eliminates a small part of the risk but could be unreliable. Another is a fault in the embankment detection system which is the best option. An automatic alert would be triggered for SMS or Siren.
20. JP's presentation ended and SS announced to the group that he was planning to retire by the end of 2024 so he may not be present at the next meeting.
21. SS finished the session at around 7.30 and asked if there was anything the group wanted to discuss at the next meeting. No-one could think of anything, so this was left open.