From:	Hugh Marshall on behalf of Sanjeev Pandey
To:	"Georgina Davis"; "janetreddan@ s.73 Irreleva; "Gail Godwin-Smith"; Andrew Barger; "s.73 Irreleva@westsidecorporation.com"; s.73 Ir@appea.com.au"; STURGESS Ben; Hugh Marshall; Sanjeev Pandey
Cc:	Andrew Barger; Lookout Feedlot
Subject:	OGIA Expenditure Advisory Committee meeting
Attachments:	image001.jpg Agenda and papers, EAC 29 January 2020.pdf Agenda item 3 attachments, EAC 29 January 2020.pdf

All,

Please find attached the papers and attachments for this OGIA EAC meeting.

As we are starting at 1 pm s.73 Irrelevant information there will be a light lunch served and a coffee order taken.

Upon arrival to the building, please ignore the Concierge "sign in" iPads, present photo ID to the Concierge desk and advise that you are visiting Sanjeev Pandey (DMRNE) on level 1. Concierge will advise us of your arrival; we will collect and bring you upstairs.

Cheers,

-Hugh

Hugh Marshall

Project Officer

Office of Groundwater Impact Assessment

Department of Natural Resources, Mines and Energy

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AGENDA

MEETING No. 16
EXPENDITURE ADVISORY COMMITTEE

DATE: Wednesday, 29 January 2020

TIME: 1–4 pm

VENUE: Meeting Room 1.08, Level 1, 1 William Street, Brisbane

ATTENDEES:

EAC MEMBERS:
Gail Godwin-Smith (Chair)
Andrew Barger
Andrew Brier
Georgina Davis
Matthew Paull
Janet Reddan

OGIA STAFF:
Sanjeev Pandey (Executive Director)
Hugh Marshall (secretariat)

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#	Agenda paper	Details
0	–	Welcome, EAC membership and ToR update
1	Agenda paper 1	Approval of minutes of meeting – 7 June 2019
2	Agenda paper 2	Final financial position for 2018-19
3	Agenda paper 3	Update on OGIA's activities
4	Agenda paper 4	Work program for inclusion of coal mining impacts
5	Agenda paper 5	Planned mining functions expenditure in 2019-20
6	Agenda paper 6	Update on 2019-20 financial position
7	–	Other business
8	–	Next meeting

AGENDA ITEM 1 – APPROVAL OF MINUTES OF MEETING – 7 JUNE 2019

MINUTES OF MEETING NO. 15

EXPENDITURE ADVISORY COMMITTEE

DATE:	Friday, 7 June 2019
VENUE:	Conference Room 12.3, Level 12, 53 Albert Street, Brisbane
TIME:	9.30 am–12.30 pm
ATTENDEES:	Gail Godwin-Smith (Chair), Andrew Barger, Andrew Brier, Matthew Paull, Sanjeev Pandey, Ben Sturgess, Hugh Marshall
APOLOGIES:	Nil
GUESTS:	Nil

EAC members:

Gail Godwin-Smith, Chair (**GGS**)

Andrew Barger (**AB1**)

Andrew Brier (**AB2**)

Matthew Paull (**MP**) via phone-in

OGIA secretariat:

Sanjeev Pandey, General Manager (**SP**)

Ben Sturgess (**BS**)

Hugh Marshall (**HM**)

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OPENING

- The Chair opened the meeting at 9.45 am.
- SP noted and welcomed the appointment of new member Gail Godwin-Smith and acknowledged the value this would provide to the Committee's business. SP also noted and thanked GGS for accepting to act as interim Chair for this meeting.
- The Chair acknowledged the resignation of the previous Chair, Ms Ruth Wade, whose contribution and credibility among the stakeholders were invaluable.
- The Chair also acknowledged AB2's attendance as a representative of industry, in the absence of Natasha Patterson, recently resigned.
- SP proposed a letter of thanks to Ruth Wade, Natasha Patterson and Ian Burnett for their contribution as former members of the Committee.
- For the benefit of new EAC member GGS, SP provided a high-level summary of OGIA's role.
    - GGS noted there is no mention in the EAC terms of reference of the Water Regulation 2016 changes relating to coal mining.

Action 1: *SP to send letter of thanks to Ruth Wade, Natasha Patterson and Ian Burnett.*

Action 2: *Amend the ToR to refer to mining functions.*

AGENDA ITEM 1 – MINUTES OF MEETING – 7 DECEMBER 2018

- The Committee considered the minutes from the meeting of 7 December 2018.

Outcome

- The EAC approved the minutes.

AGENDA ITEM 2 – OGIA'S ACTIVITY UPDATE

- SP presented slides detailing OGIA's recent activity, as summarised in Agenda Paper 2.
- The Committee noted the Attachments 1 and 2 – the public notice and letter to bore owners announcing the UWIR release.
- The Committee expressed its appreciation for and the quality of the scientific work presented; and in particular the new explanatory videos prepared by OGIA for communication purposes.
- The Committee noted that the video would go live on the OGIA website following the UWIR public information sessions in late June.
- In response to requests from stakeholders, SP extended the consultation draft UWIR submission deadline by a week, until 7 June 2019.
- OGIA has recently prepared a journal paper in conjunction with Chris Pigram of the IESC and a number of posters and presentations to the APPEA Conference held in May.

Outcome

- The EAC noted the agenda paper, the draft UWIR, the public notice, the letter to bore owners and the slides presented.

AGENDA ITEM 3 – UPDATE ON FINANCIAL POSITION FOR 2018-19

- SP spoke to the agenda paper and highlighted that OGIA's end of financial year forecast expenditure was only 3% under budget.

Outcome

- The EAC noted the agenda paper with no issues raised.

AGENDA ITEM 4 – PLANNED EXPENDITURE 2019-20

- SP spoke to the paper and highlighted the following:
    - The budget for 2019-20 is $4,151k, about 4% lower than 2018-19 mainly due to easing out of effort relating to the preparation and release of the UWIR.
    - Work in future would continue on refining the regional groundwater flow model in specific areas.
    - Less work is planned in all areas of hydrogeological assessment, given the draft UWIR requires less overall post-UWIR investigation than past UWIRs.
    - There is no planned spend on Environmental Values work in 2019-20.

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- An increase in planned ICT costs from 2018-19 is partly due to the intention to create a web interface for the submission of data from companies. Lower costs are expected in printing, postage, travel and consumables.

Outcome

- The EAC noted the agenda paper with no issues of concern.

OTHER BUSINESS

- Nil

NEXT EAC MEETING

- The next EAC meeting in November 2019 is to be confirmed with reasonable notice.

CLOSE

- The Chair closed the meeting at 12.30 pm.

RECOMMENDATION

That the EAC note this paper.

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AGENDA ITEM 2 – FINAL FINANCIAL POSITION FOR 2018-19

PURPOSE

To provide a summary of the final financial position for 2018-19.

BACKGROUND

In accordance with the provisions of the *Water Act 2000*, the activities of the Office of Groundwater Impact Assessment (OGIA) are funded by a statutory levy on petroleum tenure holders.

The Water Regulation 2016 establishes the structure of the levy. The levy apportions costs between petroleum tenure holders, or classes of holders, based on the cost of OGIA carrying out functions specific to the holders or class of holders.

An annual levy amount is determined based on the OGIA budget approved by the Minister and the tenures held on 1 July of the year. The invoice includes a credit for unspent funds from the previous year.

On 10 September 2018, a budget of $4,540k for 2018-19 (inclusive of $225k contingency) was approved by the Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy. This gave a working budget of $4,315k.

UPDATES

Final expenditure for 2018-19

- At the 7 June 2019 meeting, the EAC noted that OGIA's 2018-19 forecast end of financial year expenditure was $4,167k – $148k under the budget.
- The anticipated Department of Environment and Science (DES) decision about the declaration of Cumulative Management Areas (CMA) was not forthcoming, and so the anticipated synergies between OGIA's P&G-related and coal mining-related functions were not realised.
- In August 2019, OGIA's accounts were finalised, confirming final expenditure for 2018-19 as $4,042k, a further $125k less than forecast. The 2018-19 expenditure is summarised in Table 1 and graphed in Figure 1. Details about variances are provided in subsequent sections.

Table 1 Financial position for 2018-19

	2018-19 Budget (,000)	2018-19 Actual (,000)	2018-19 Variance (,000)
Employee expenses	$2,287	$2,233	$(54)
Corporate costs	$512	$512	$0
Supplies and services	$405	$300	$(105)
Contractors and consultancies	$1,106	$975	$(131)
Other	$5	$22	$17
Total	**$4,315**	**$4,042**	**$(273)**
Contingency	$225	$0	$(225)

Sums may differ due to rounding.

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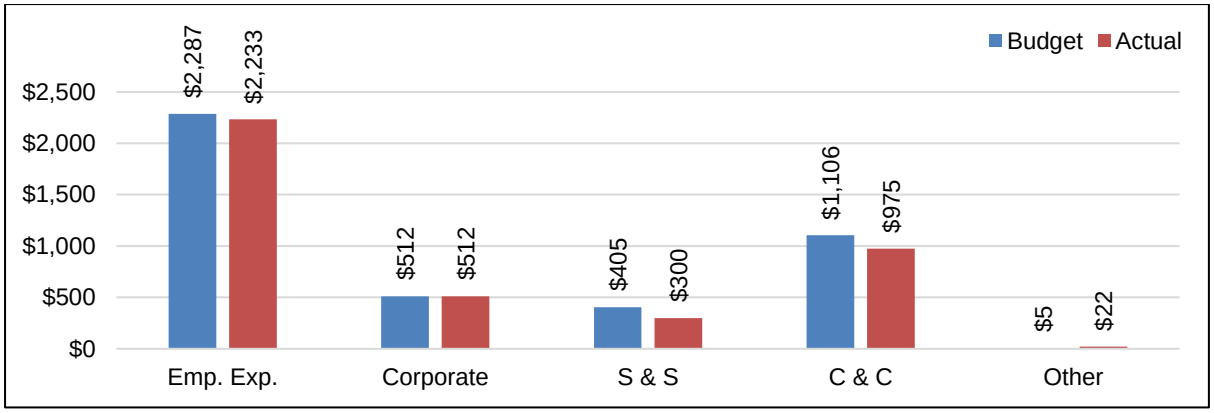

Figure 1 Financial position for 2018-19

Employee expenses

- Employee expenditure was under budget by $54k primarily due to vacancies.

Corporate costs

- Corporate costs comprise the "Internal Service Charge", which includes office accommodation at 1 William Street, ICT infrastructure, invoicing, payroll, web and communications, finance, human resources and in-house legal services. There is no variance in corporate costs.

Supplies and services

- Supplies and services costs include items such as materials, analytical services, recruitment and advertising services, telephone and computing equipment, printing and travel.
- The overall 2018-19 position for supplies and services was $105k under budget. A breakdown is provided in Table 2.

Table 2 Supplies and services 2018-19

	2018-19 Budget	2018-19 Actual	2018-19 Variance
Accommodation	$7,143	$7,145	$2
Advertising and promotion	$15,500	$13,237	$(2,263)
Information and communication	$173,527	$193,389	$19,862
Legal fees	$2,000	$0	$(2,000)
Materials and consumables	$48,000	$0	$(48,000)
Minor plant and equipment	$15,000	$18,770	$3,770
Motor vehicles	$18,120	$1,666	$(16,454)
Printing and postage	$51,200	$25,901	$(25,299)
Testing and analytical	$7,960	$0	$(7,960)
Training and recruitment	$16,000	$6,834	$(9,166)
Travel	$42,000	$28,198	$(13,802)
Other expenses	$8,500	$4,615	$(3,885)
Total	**$404,950**	**$299,755**	**($105,195)**

Sums may differ due to rounding.

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- The overall underspend is primarily due to less materials, lab analysis and motor vehicle expenses resulting from less field work than planned.
- Printing and postage costs were also lower than budgeted, due to reduced demand for copies of the UWIR.

Contractors and consultancies

- OGIA uses contractors and consultancies to supplement its core expertise. In most instances, contractors are commissioned as team members to better integrate with project work and keep full-time equivalent (FTE) numbers within the allocated limit.
- This supplementing arrangement provides OGIA the flexibility to accommodate the varying complexity and scope of technical work as required. As a result, this is typically the most variable part of the budget.
- Contractors and consultancies 2018-19 expenditure was $975k, which is $131k under budget. A breakdown is provided in Table 3.

Table 3 Contractors and consultancies 2018-19

	2018-19 Budget (,000)	**2018-19 Actual (,000)**	**2018-19 Variance (,000)**
Regional groundwater modelling	$280	$517	$237
Hydrogeological assessment	$667	$298	$(369)
Environmental value assessment and spring research	$136	$144	$8
Data management and business support	$23	$16	$(7)
Total	**$1,106**	**$975**	**$(131)**

Sums may differ due to rounding.

- A total of $280k was budgeted for regional modelling. The full year's work was significantly over budget due to increased modelling effort required to support UWIR 2019 preparation.
- The full year expenditure on hydrogeology assessments was $298k, which is $369k under budget. This was due to the majority of fieldwork relating to trend analysis and bore connectivity being undertaken in-house.
- The underspend has been deliberate, to balance with the overspend in modelling. Work relating to connectivity due to water bores and coal exploration holes was constrained.

RECOMMENDATION

That the EAC note this paper.

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AGENDA ITEM 3 – UPDATE ON OGIA'S ACTIVITIES

PURPOSE

To provide an update on the Office of Groundwater Impact Assessment's (OGIA) activities in the last six months.

BACKGROUND

In the last meeting, an update was provided on the content and release of the consultation draft of the Surat Underground Water Impact Report (UWIR). Since then, the UWIR was finalised and submitted to the Department of Environment and Science (DES) on 2 August 2019, along with a submission summary. The final report was approved by DES with conditions on 12 November 2019. The UWIR took effect on 16 December 2019.

Amendments made to the Water Regulation 2016 on 28 November 2019 have now also established a structure for OGIA's mining-related functions and allowed a levy to be raised. DES is aiming to gazette a notice in January 2019 to amend the Surat cumulative management area (CMA) to include coal mining tenures in the Surat and Clarence-Moreton basins. This will trigger a statutory requirement to update the existing UWIR for relevant coal mining impacts in the Surat CMA.

In this context, the primary focus of OGIA since the last meeting on 7 June 2019 has been on public consultation, finalisation of the Surat UWIR and planning for future coal seam gas (CSG) and mining-related work. This paper provides an overview of those activities.

UPDATES

Consultation process on Draft UWIR 2019

- Following the release of the consultation draft in May 2019, briefings were held with a number of agencies and peak bodies, including the following:
    - various government agencies
    - Australian Petroleum Production and Exploration Association (APPEA) and CSG companies
    - the University of Queensland (UQ) and CSIRO, separately
    - the Queensland Resources Council
    - the Queensland Farmers Federation and AgForce, separately
    - the Queensland Conservation Council.
- A public notice about the release of the draft UWIR was placed in 11 major and regional newspapers from 30 May to 5 June 2019.
- A letter with a copy of the public notice was mailed on 3 June 2019 to bore owners and tenure holders in the Surat CMA.
- Post-release briefings were held with OGIA's Stakeholder Reference Group and Agency Reference Group.
- Presentations on the findings of the Draft UWIR were made to the IESC and federal agencies in June 2019.
- Regional information sessions were held between 20 and 25 June 2019 in Toowoomba, Dalby, Chinchilla, Wandoan and Roma.

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- The OGIA website provided access to the draft UWIR and a bore search tool that enabled bore owners to access information about the predicted impacts on water levels in individual bores.
- During the consultation period, the website was accessed approximately 1,400 times.
- OGIA received a total of 23 submissions from landholders or landholder based groups (8), industry or industry based groups (6), general community members (4), environmental groups (4) and agencies (1).
- The Submissions Summary (Attachment 1) provides information about the consultation process, the issues raised during consultation and the way OGIA dealt with the submissions in preparing the final UWIR.

Issues raised

- **Landholder** and community groups raised a range of issues relating to:
    - the effect of both coal seam gas (CSG) and non-CSG groundwater take on the sustainability of the GAB, particularly in the Hutton Sandstone
    - the effect of climate change
    - the impact of migrating gas in water bores
    - delays in finalising make-good arrangements
    - the indirect impact of make-good bores in the Hutton Sandstone
    - overall impacts of CSG development, construction of CSG wells, the effect of modelling scale on predicting impacts in water supply bores
    - the inherent limitation associated with the modelling of impacts.
- The **industry** or industry based groups primarily raised issues around:
    - financial implications of monitoring
    - the lack of scientific rationale provided to support new monitoring points
    - the practicality of implementing monitoring obligations off tenure and away from production areas
    - the lack of clarity around the spring and watercourse risk assessment and its implication on monitoring obligations
    - changes to the responsible tenure holder rules
    - the lack of more detailed engagement on the issues raised prior to the release of draft UWIR.
- The **environmental** groups generally raised issues on:
    - impacts on springs
    - the lack of firm actions on mitigation of impacts
    - the lack of reconciliation of the impacts identified in the UWIR
    - tenure holders' approvals under the various authorities and approval conditions.
- There was a general expectation that although many of the issues are outside the scope of the UWIR, broadening of scope should be considered in future.
- Landholder and community groups also expressed general appreciation of, and satisfaction with, the availability of independent assessment, the quality of information presented and the readability of the UWIR for a general audience.

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Response to submissions

- Minor amendments to the UWIR were made, primarily to provide additional clarity on non-CSG impacts in the Walloon Coal Measures, investigations relating to the Horrane Fault and modelling limitations.
- Some transcription errors in applying the spring risk assessment were corrected.
- Following further engagement with the industry, rationale for changes to the monitoring network and monitoring strategy was included in Chapter 8 of the UWIR, with some corresponding adjustments to monitoring obligations.
- Uncertainties in the assessment of impacts at the Cockatoo and Horse Creek spring groups are acknowledged and changes to the mitigation strategy were made.
- A peer review of the model since the release of the draft UWIR found that the model was fit for purpose and exceeded the national standards.
- No changes were made to predictions of impacts, but the number of Immediately Affected Area (IAA) bores changed from 101 to 100 and Long Term Affected Area (LAA) bores from 574 to 571 (the LAA bore count includes IAA bores). This was because, since the release of the draft UWIR, further verification of the status of water bores by DNRME and information provided by tenure holders suggested that one IAA bore and two LAA bores were abandoned or destroyed.
- Information is also updated for the make-good status of previously identified IAA bores.

Approval of the UWIR

- OGIA submitted the final report to DES on 2 August 2019 along with the Submission Summary.
- DES sought a number of clarifications and further information on the report from OGIA in October and November 2019.
- On 12 November 2019, DES approved the final UWIR 2019 (Attachment 2).
- The take-effect date for the UWIR 2019 is 16 December 2019, at which time it superseded the previous UWIR 2016.
- Similar to previous UWIRs, the UWIR 2019 is also approved with conditions (Attachment 3) which require OGIA to provide some additional detail to DES in 2020.
- As per legislative requirements, within 10 business days of the approval, OGIA:
    - published a notice of approval on the OGIA website (Attachment 4)
    - made the approved report available on the OGIA website
    - sent a letter to about 10,300 landholders (Attachment 5) within the CMA to inform them about the approval, with a copy of the notice attached.

Other engagements and activities

- OGIA presented at the Queensland Great Artesian Basin Advisory Council meeting on 2 September 2019 to provide an overview of the UWIR 2019 findings.
- A meeting with members of the Industry Reference Group was held in September 2019 to update and seek feedback in relation to future technical challenges.

UWIR implementation and data maintenance

- Various presentations on the UWIR were also made to other interested groups.

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- OGIA has facilitated the implementation of the WMS and SIMS as stipulated in the UWIR 2016 and has continued to work with tenure holders to improve the quality of data submissions.
- The process is maturing and there is generally a high standard of data submission by the majority of tenure holders. However, there remains difficulty in relation to data format and completeness from some tenure holders.
- OGIA continues to engage with tenure holders on revisions to baseline assessment information submitted. Validated information for more than 3,500 water bores will be uploaded to the Groundwater Database during the next six months.

Preparatory work for mining functions

- OGIA has commenced preparatory work for mining-related functions – including development of a work program, building of capacity and preliminary engagement with various agencies to seek data and information.
- Budgeting and levy process/calculation is set-up to generate invoices, but substantial work on scientific assessment will not commence until the CMA amendment takes effect.

Data provision and additional model runs

- Increasingly, more and more requests are being made of OGIA by industry and research organisations to provide data, information and additional model scenario runs for various regulatory approvals or research. This requires substantial resourcing to prepare agreements, data, model runs, review and quality checks and compilation.
- Some of the recent data/information provisions include the following:
    - All of industry – compilation of various UWIR 2019 data, e.g. baseline, modelling and geomodel data
    - Central Petroleum – stratigraphic markers
    - Westside – aquifer attribution
    - Miles Historical Society – geological model surfaces
    - UQ – geological model of the Main Range Volcanics footprint
    - Origin – model output at selected monitoring bores (5th, 50th, 95th percentiles) to support annual assessment
    - QGC – groundwater model and geological model.

Advice

- Section 458 of the *Water Act 2000* provides that "the chief executive [of DES] may give [OGIA] a written direction requiring [OGIA] to advise the chief executive on any matter relating to impacts on underground water caused by the exercise of underground water rights."
- The following requests have been received in last six months:
    - Modelling of groundwater impacts from Ensham Coal for its mine site in Central Queensland – c*ompleted*
    - Three UWIRs from Bridgeport Energy Limited for operations in the Cooper and Eromanga basins – *completed*
    - Groundwater Characteristics Monitoring Program from Arrow CSG (Australia) Pty Ltd for PL253, the former Linc Energy site – *ongoing*

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Publication, reports and conference presentations

- Since the release of the Draft UWIR, OGIA has also finalised the following reports and made them publicly available on the OGIA website:
    - Updated geology and geological model for the Surat CMA
    - Groundwater modelling report for the Surat CMA
    - Terrestrial groundwater-dependent ecosystems in the Surat CMA
    - Analysis of groundwater level trends in the Hutton Sandstone, Springbok Sandstone and Condamine Alluvium – Surat CMA
- Over the past few years, OGIA has received numerous suggestions and requests for wider communication of its role and technical assessment. As a result, in recent months, OGIA has explored opportunities for presenting in local conferences and publishing articles.
- Three journal articles have been published in the GAB2020 special edition of the Hydrogeology Journal:
    - Inter-aquifer connectivity between Australia's Great Artesian Basin and the overlying Condamine Alluvium: an assessment and its implications for the basin's groundwater management (published)
    - Improved characterisation of unmetered stock and domestic groundwater use in the Surat and Southern Bowen basins of the Great Artesian Basin (Australia) (published)
    - A multidisciplinary approach to the hydrological conceptualisation of springs in the Surat Basin of the Great Artesian Basin (Australia) (accepted)
- Two journal articles were published in the APPEA Journal:
    - Synergies in the role of the Office of Groundwater Impact Assessment and the Independent Expert Scientific Committee on coal seam gas and large coal mining development in environmental assessments
    - Cumulative groundwater impact assessment and management in the Surat Basin – a journey from framework to implementation
- Two journal articles are also submitted to the Journal of Hydrology special edition on cumulative impacts from resource development:
    - Prediction of cumulative groundwater impacts from coal seam gas extraction in the Surat Basin
    - Independent assessment and management of cumulative groundwater impacts from coal seam gas and mining – development and implementation of an innovative legislative framework
- Six OGIA team members made presentations at the Australasian Groundwater Conference 2019 in Brisbane. DNRME and OGIA provided Exhibitor-level ($3,500) sponsorship. Mr Sanjeev Pandey and Mr Steven Flook chaired sessions and Mr Pandey and Ms Anna Bui were also part of the organising committee.

Recruitment and staffing

- Following the release of the draft UWIR, three technical team members have departed to seek new challenges in the consulting sector, including s.73 Irreleva s.73 Irrelevant information

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- Following various recruitment processes, OGIA has replenished capacity by securing two principal hydrogeologists, an intermediate hydrogeologist and a GIS/data analyst – all of whom have considerable consulting and industry experience.
- The process to fill the Director position has not yielded satisfactory results and an internal candidate, Mr Gerhard Schöning, has been appointed in the interim.

RECOMMENDATION

That the EAC note the update on OGIA's core activities since the last meeting.

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AGENDA ITEM 4 – WORK PROGRAM FOR INCLUSION OF COAL MINING IMPACTS

PURPOSE

To provide an update on the Office of Groundwater Impact Assessment's (OGIA) work program for inclusion of coal mining impacts.

BACKGROUND

Amendments to the Water Regulation 2016 in 28 November 2019 have now established a structure for OGIA's mining-related functions and allowing a levy to be raised. This was preceded by a regulatory impact statement process by the Department of Natural Resources, Mines and Energy (DNRME) in late 2019, involving consultation with stakeholders.

Following a public engagement process in June 2019, the Department of Environment and Science (DES) is aiming to gazette a notice to amend the Surat cumulative management area (CMA) to include coal mining tenures in the Surat and Clarence-Moreton basins. This will trigger a statutory requirement to update the existing UWIR for the Surat CMA for relevant coal mining impacts.

DES sought OGIA's views on the timeframe required to undertake necessary assessment of mining impacts in the Surat CMA for the purpose of amending the UWIR. It is anticipated that DES will direct OGIA to submit an amended UWIR by September 2021, which would include impacts from coal mining as well as CSG tenures.

SCOPE

There are two separate components of the work program relating to coal functions: (1) raising levy and industry engagement; and (2) scientific assessment. Key elements of the work program for coal mining-related functions are listed below.

Levy and engagement

- Engage with the industry – Queensland Resources Council (QRC) and key mining tenure holders – about OGIA's role and funding/levy arrangements.
- Prepare the budget and establish the levy process.
- Compile/process supporting data on mining leases, project status and associated water take across the state for preparing the levy.
- Seek budget endorsement from the EAC and approval from the minister.
- Issue levy invoices.
- Expand OGIA's existing reference groups to include relevant mining sector representation.
- Hold public/shed meetings with landholders to educate, engage and update on matters relating to coal mining impact assessment.

Impact assessment and management strategies (coal mining functions only)

- Review existing groundwater assessments by various mine operators under their EISs and related studies (literature review).
- Seek, collect and capture relevant data and information from publicly available sources and the industry.
- Compile and process mine development plans and status.
- Compile, QA/QC and process associated water take data and estimate historic take.

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- Compile and validate groundwater assets in the coal mining areas, including water bores and other environmental values.
- Seek and compile all available monitoring data, and assess groundwater conditions and trends, around sub-regions where existing and proposed coal mines are located.
- Assess groundwater flow conditions, geology and hydrochemistry to develop hydrogeological conceptualisation of groundwater flow and impact pathways for sub-regions.
- Build sub-regional groundwater flow models around mine areas and make predictions of impacts on aquifers and groundwater assets.
- Undertake a risk assessment on environmental values.
- Develop strategies for management of impacts on springs and watercourses.
- Develop a strategy for any new groundwater monitoring required.
- Negotiate responsible tenure holder rules.
- Prepare report and consult with relevant stakeholders and government agencies.

OVERVIEW OF APPROACH TO EXECUTION

- Coal mining impact assessment will be undertaken at a sub-regional scale, comprising one or more mines in close proximity, rather than at a mine scale for individual mines. Three sub-areas are identified at this stage:
    - Northern Area, comprising Wandoan Coal Mine, Elimatta and The Range
    - Central Area, comprising Cameby Downs and Kogan Creek
    - Eastern Area, comprising New Acland mines
- A comprehensive literature review will involve the collation and review of groundwater assessments by coal tenure holders as part of their environmental approval processes or mine operations.
- Hydrogeological assessment will also focus on the sub-regional scale, involving an assessment of current conditions and trends in sub-regional areas around the current and proposed mine sites, an assessment of current and historical associated water take and development of hydrogeological conceptualisation and impact pathways. The hydrogeological assessment will build on existing work by OGIA in relation to P&G as well as assessments by the coal industry.
- Some field validation and verification of water supply bores and environmental assets is anticipated.
- Impact modelling will involve reviewing existing modelling work and potentially building sub-regional groundwater models for three coal areas, at an appropriate scale, to address issues identified in the literature review stage.
- The scale and scope of modelling will remain on sub-regional cumulative impact assessment, rather than mine-specific operational models that are typically developed by individual mines for their day-to-day operational/dewatering purposes.
- OGIA has sufficient capacity to undertake the majority of the assessment in-house, but some outsourcing is anticipated to supplement core work.
- It is proposed to commission a contractor for compiling metadata about the coal mines outside the CMA. This will include mine status, groundwater impact assessments and supporting information for verifying reported associated water volumes.

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SCHEDULE

OGIA plans to prepare the draft amended UWIR by September 2021 – about 20 months from the date of the CMA amendment.

Key milestones are as below:

- Initial engagement – by February 2020
- Issue of levy invoices – by April 2020
- Completion of data collection and literature review – by April 2020
- Groundwater assets verification and hydrogeological conceptualisation – by September 2020
- Responsible tenure holder rules are established in principle – by November 2020
- Modelling and impact predictions – by May 2021
- Release of draft Supplementary UWIR for consultation – by September 2021

KEY RESOURCES AND BUDGET

This is detailed in the separate Agenda Paper 5.

RISKS AND OPPORTUNITIES

Identified risk	Controls
1. Increased activist and media focus on OGIA, lack of trust in assessments, and opposition to individual mine projects.	• Proactively engage with tenure holders, peak bodies and communities. • Focus on OGIA's value proposition and specific role – i.e. independence, information brokerage, science, quality of previous assessments for CSG and clarity on obligations.
2. Delays in the provision of critical datasets and information which affect the quality and timing of delivery.	• Engage early with the industry and the Coal Hub network. • Focus on key data needs and benefits of the assessment for all involved – lessons from the CSG sector. • Establish a coal industry reference group for data sharing.
3. Challenges in integrating coal and CSG into a single cumulative assessment, resulting in project delays – e.g. different scales of assessment and rules for assigning tenure holder obligations in overlapping tenure areas.	• Establish modelling strategies for integrating local and regional models early in the work program. • Progressively integrate this with the existing CSG industry reference group. • Engage early with the industry on establishing responsible tenure holder rules.

RECOMMENDATION

That the EAC note OGIA's work program for inclusion of coal mining functions and related assessments.

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AGENDA ITEM 5 – PLANNED MINING FUNCTIONS EXPENDITURE IN 2019-20

PURPOSE

To provide details of the planned mining functions expenditure in 2019-20 by the Office of Groundwater Impact Assessment (OGIA) for remainder of the financial year 2019-20.

BACKGROUND

OGIA is fully funded through an industry levy which is paid into a statutory 'Groundwater Impact Assessment Fund'. On 28 November 2019, the Water Regulation 2016 was amended (Part 2, s84 to s90) to include a levy for OGIA's mining functions. In January 2020, the Surat CMA is also expected to be amended to include coal mines.

The *Water Act 2000* provides that OGIA prepare its annual budget and consult with a relevant advisory body on the proposed expenditure, and that the budget be approved by the Minister for Natural Resources, Mines and Energy before the levy is raised.

A work program for OGIA's mining functions is provided in Agenda Paper 4. This paper provides an estimated budget for those functions to raise a levy on relevant mining tenures and outlines implications for the petroleum and gas (P&G) levy due to synergies.

LEVY STRUCTURE FOR MINING FUNCTIONS

- A consultation Regulatory Impact Statement (RIS) was released in June 2019 with a proposal and structure for a levy. Following this, a decision RIS was released in late November 2019 and the Water Regulation 2016 was amended to include the levy structure.
- The levy structure comprises three classes:
    - Two classes inside a CMA, where the levy will be based on relevant tenure area footprint:
        - mining leases (*Class A*)
        - mineral development licence holders – where an application for lease or relevant environmental authority is applied for, or where an environmental impact assessment process in underway (*Class B*).
    - One class outside a CMA, based on a flat rate per mining project where the average associated water take is 500 ML/year or more (*Class C*).

BUDGET

- The planned expenditure for mining functions for the remainder of the financial year 2019-20 is $439k, as summarised in Table 1.

Table 1 Planned expenditure for mining functions in 2019-20

Cost item	Budget 2019-20 (,000)
Personnel expenses	$242
Corporate costs	$55
Supplies and services	$45
Contractors and consultancies	$97
Total (excl. contingency)	**$439**
Contingency provision	$24

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- There is considerable synergy in undertaking mining and P&G functions together in the Surat CMA. As a result, savings are anticipated for P&G levy payers and the refund for 2019-20 P&G unspent levy funds is expected to be greater than previous years.
- At this stage, it is estimated that synergies between P&G and mining functions will result in about $294k reduction in the P&G budget while overall OGIA's costs will increase by about $145k.
- The majority of the resources and expertise to undertake mining functions will be sourced from within existing OGIA team members. Only one additional full-time equivalent (FTE) is added to manage the extra work load at this stage.
- About $36k of the mining budget is allocated to functions outside CMA relating to the provision of advice, and creation and maintenance of relevant database of information.

RAISING LEVY

- Following the endorsement by the EAC and approval of the budget by the Minister, OGIA will prepare and send mining levy invoices.
- Based on the proposed budget there are six mining tenure holders that will pay the levy under Class A, one under Class B (Wandoan Holding and New Hope being the major contributors), and about 25 tenure holders outside the CMA under Class C.

RECOMMENDATION

That the EAC endorse the mining functions budget for 2019-20.

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AGENDA ITEM 6 – UPDATE ON 2019-20 FINANCIAL POSITION

PURPOSE

To provide an update on the levy, budget and expenditure position for 2019-20.

BACKGROUND

On 7 June 2019, the EAC endorsed OGIA's budget of $4,151k plus $225k contingency.

The contingency is held separately from the budget and unused funds will be adjusted as credits in the levy for 2020-21.

UPDATES

Budget approval for 2019-20

- On 15 July 2019, the OGIA budget was approved by the Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy.

Levy for 2019-20

- On 18 November 2019, OGIA sent the levy invoices for a total amount of $3,878k after an adjustment (credit) for $498k of unspent funds from the previous year's levy.
- Distribution of P&G levy payers was as below:
    - six (6) CSG tenure holders in the Surat CMA paying 94.3% of the total levy
    - 11 conventional P&G tenure holders in the CMA paying 5.0% of the total levy
    - seven (7) P&G tenure holders outside the CMA paying 0.7% of the total levy.
- An additional levy for $439k (plus contingency) is also planned for the remainder of 2019-20 for mining functions (Agenda Paper 5).
- Subject to ministerial approval of the mining functions budget, the net levy for 2019-20 will effectively be $4,815k, comprising $4,151k for P&G, $439k for mining and $225k contingency.
- The 2017-18 and 2018-19 levy payments from Brisbane Petroleum are outstanding. Brisbane Petroleum has a history of non-payment. Debt recovery is being managed and full payment is expected.

Overall financial outlook

- The financial position as of December 2019 is summarized in Table 1.
- OGIA's end-of-financial-year (EOFY) forecast expenditure is currently under budget by about 11%. However, the actual underspent is likely to higher because of the additional levy planned for mining functions.
- The underspend to date is primarily due to position vacancies and departure from scheduling of the program in consideration of the impending coal mining CMA declaration.

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Table 1 Financial position for 2019-20 as at 31 December 2019 (,000)

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Employees	*$2,354*	*$1,180*	*$837*	*$1,855*	*$499*
Agency staff	*$235*	*$123*	*$149*	*$508*	*$(273)*
Personnel subtotal	$2,589	$1,303	$986	$2,363	$226
Corporate costs	$512	$252	$252	$512	$0
Supplies and services	$410	$172	$216	$417	$(8)
Contractors and consultancies	$640	$315	$55	$399	$241
Other	$0	$0	$0	$0	$0
Total, P&G functions	**$4,151**	**$2,042**	**$1,509**	**$3,691**	**$459**
Contingency	$225	$0	$0	$0	$225

Sums may differ due to rounding.

Personnel costs

- The OGIA core team consists of staff through two separate arrangements: (1) employees and (2) staffing agencies providing long-term staff classified as contractors. Personnel from both arrangements are housed together at 1WS as a single team under a single structure. Therefore, reporting of budget and expenditure is realigned by splitting agency staff budget from contractor and reconciling with personnel as a separate line item.
- This arrangement provides greater flexibility for hiring and managing staff members with technical expertise.
- EOFY personnel expenditure is forecast to be $2,589 and will be underspent due to vacancies and rescheduling of work.
- A number of OGIA staff members have departed and the recruitment processes to backfill those positions have taken longer than expected.
- Over time, more work has been undertaken internally and this trend is continuing.
- A number of positions are filled through the contracting arrangements to provide greater flexibility.

Corporate costs

- Corporate costs include the internal service charge, which includes accommodation at 1WS (including 1WS ICT infrastructure charges), invoicing, payroll, web and communications, finance, human resources and in-house legal services.
- The rate for corporate costs is fixed and in expected to be in line with the budget.

Supplies and services

- A breakdown of the supplies and services budget is provided in Table 2.
- Supplies and services include costs for items such as materials, analytical services, recruitment and advertising services, telephone and computing equipment, printing, travel and other.

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- The overall EOFY position for supplies and services is forecast to be $414k, which is broadly in line with the budget.

Table 2 Supplies and services costs as at 31 December 2019

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Accommodation costs	$7,143	$3,623	$3,645	$7,164	$(21)
Advertising and promotion	$15,000	$15,000	$753	$753	$14,247
Information technology	$115,209	$56,812	$55,896	$114,293	$916
Legal fees	$2,000	$1,000	$0	$1,000	$1,000
Materials and consumables	$20,000	$0	$368	$20,368	$(368)
Minor plant and equipment	$6,000	$3,000	$0	$3,000	$3,000
Motor vehicles	$3,760	$1,380	$5,217	$7,597	$(3,837)
Printing and postage	$5,000	$3,490	$5,266	$6,776	$(1,776)
Software licensing	$179,813	$78,000	$81,800	$179,813	$0
Testing and analytical	$0	$0	$0	$0	$0
Training and recruitment	$10,000	$0	$2,605	$7,605	$2,395
Travel	$7,800	$2,500	$11,948	$17,248	$(9,448)
Other expenses	$38,000	$7,409	$48,903	$38,036	$(36)
Total	**$409,725**	**$172,215**	**$216,401**	**$403,653**	**$6,072**

Sums may differ due to rounding.

- UWIR printing and distribution expenses budgeted as “Advertising and promotion” were incurred against “Printing and postage” and were lower than anticipated ($12k variance).
- $11k variance across the budget areas of Motor vehicles, Training and Travel is due to increased OGIA staff attendance at public meetings, conferences and other events.

Contractors and consultancies

- Table 3 provides a breakdown of the contractors and consultancies line item from Table 1. Further details are provided below the table.

Table 3 Contractors and consultancies costs as at 31 December 2019 (,000)

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Regional groundwater modelling	$230	$110	$0	$36	$194
Hydrogeological assessments	$300	$150	$0	$175	$125
Environmental value assessment and spring research	$0	$0	$0	$24	$(24)
Data management and business support	$110	$55	$55	$164	$(54)
Total	**$640**	**$315**	**$55**	**$399**	**$241**

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FOI Act 1982

Sums may differ due to rounding.

- Increasingly, the work is undertaken by OGIA within its own team as employees or through hiring agency contractors. The arrangement provides OGIA flexibility to accommodate the varying complexity and scope of technical work.
- Outsourcing of work as contracting and consultancy services is used to supplement OGIA's core expertise.
- EOFY expenditure is expected to be $399k, which is $241k under budget.
- A total of $230k was budgeted for regional modelling expert input. Additional resources may be required following an ongoing scoping study for future research.

RECOMMENDATION

That the EAC note the paper.

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AGENDA ITEM 3

ATTACHMENT 1

SUBMISSIONS SUMMARY

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AGENDA ITEM 3

ATTACHMENT 2

UWIR 2019

As the UWIR 2019 file is too large to include in this PDF pack, hard copies will instead be provided during the EAC meeting on 29 January.

EAC members wishing to review the UWIR 2019 ahead of the meeting can view and download it online:

https://www.business.qld.gov.au/industries/mining-energy-water/resources/landholders/csg/surat-cma/uwir

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AGENDA ITEM 3

ATTACHMENT 3

Notice of Approval of UWIR 2019

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Notice

Water Act 2000

Notice of approval of underground water impact report

This statutory notice is issued by the chief executive[1] pursuant to section 385(4) of the Water Act 2000 *to advise you of the decision to approve your underground water impact report.*

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Office of Groundwater Impact Assessment
1 William Street
BRISBANE CITY QLD 4000

Your reference: Underground Water Impact Report for the Surat Cumulative Management Area
Our reference: 101/00308656

Attention: Sanjeev Pandey

Dear Sanjeev Pandey,

Re: Notice of approval of underground water impact report

The chief executive received an underground water impact report described below.

1. Report details

Date underground water impact report received: 2 August 2019

In relation to: the Surat Cumulative Management Area (CMA)

2. Decision

The chief executive has approved the underground water impact report with conditions. Please find attached the conditions of approval (Attachment A). The approved report takes effect on 16 December 2019.

3. Public notice

As per section 386 of the *Water Act 2000*, within 10 business days after receiving this notice of approval, you must

- publish a notice about the approval that states that copies of the approved report may be obtained from you and how the copies may be obtained; and
- give a copy of this notice of approval to each bore owner of a water bore within the area to which the report relates.

[1] The Department of Environment and Science is the chief executive for Chapter 3 of the *Water Act 2000.*

Within 15 business days after receiving this notice of approval, you must advise the chief executive that you have complied with the requirements outlined above.

4. Penalties

Under section 386(1) of the *Water Act 2000*, failure to comply with this direction notice is an offence.

- A maximum penalty for an individual is 50 penalty units, totalling $6,672.50
- A maximum penalty for a corporation is 250 penalty units, totalling $33,362.50.

If you have any questions regarding this notice please contact the Department of Environment and Science on the telephone number listed below.

Yours sincerely s.73 Irrelevant inf

s.73 Irrelevant information

12 November 2019

Signature Date

Clancy Mackaway
Manager
Department of Environment and Science
Delegate of the chief executive
Water Act 2000

Enquiries:
Energy and Extractive Resources
Department of Environment and Science
GPO Box 2454, Brisbane QLD 4001
Phone (07) 3330 5715
Email: energyandextractive@des.qld.gov.au

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Attachments

Attachment A - Conditions of approval

Attachment A - Conditions of approval

1. The **responsible entity** must submit to the **chief executive by** 31 January 2020 a separate analysis of groundwater movement for each aquifer listed below pursuant to s.376(1)(b)(ii) of the *Water Act 2000*:
    a. **GAB** – Springbok Sandstone;
    b. **GAB** – Walloon Coal Measures;
    c. **GAB** – Hutton Sandstone;
    d. **GAB** – Precipice Sandstone;
    e. Bowen Basin – Clematis Sandstone;
    f. Bowen Basin – Bandanna Formation; and
    g. Bowen Basin – Cattle Creek Formation.
2. The **responsible entity** must submit to the **chief executive** by 31 January 2020 a separate analysis of the trends in water level change for each aquifer listed below due to the quantity of water produced or taken from the area because of the exercise of any previous relevant underground water rights pursuant to s.376(1)(b)(iii) of the *Water Act 2000*:
    a. Bowen Basin – Clematis Sandstone;
    b. Bowen Basin – Bandanna Formation; and
    c. Bowen Basin – Cattle Creek Formation.

    Should the **responsible entity** determine that there is insufficient data to establish trends, this determination and its grounds must be included in the UWIR in lieu of the trend analysis.
3. The **responsible entity** must submit an environmental values assessment with the first annual review that updates the assessment of impacts presented in the approved UWIR on the following environmental values:
    a. Terrestrial Groundwater Dependent Ecosystems;
    b. Changes in water quality of each aquifer (including water quality objectives, groundwater flow direction, rate, and movement); and
    c. Irrigation land.

    In addition to the information presented in the approved UWIR, the environmental values assessment must specifically differentiate between the impacts over the following time periods:
    - Impacts that have occurred or are likely to occur because of any previous exercise of underground water rights pursuant to s.376(1)(da) of the *Water Act 2000*;
    - Impacts that will occur or are likely to occur because of the exercise of underground water rights during the three (3) year period starting on the consultation day of the report pursuant to s.376(1)(db)(i) of the *Water Act 2000*; and
    - Impacts that will occur or are likely to occur because of the exercise of underground water rights over the projected life of the resource tenures pursuant to s.376(1)(db)(ii) of the *Water Act 2000.*
4. The **responsible entity** must submit to the **chief executive** by 31 January 2020, further details on the program for **responsible tenure holders** under the UWIR to undertake a baseline assessment of bores located in the areas detailed in s.378(3)(a) and s.378(3)(b) of the *Water Act 2000.* The program must include the following and made available on the responsible entity's website:

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a. Bore identification details e.g. unique identifying number or GPS coordinates; and

b. Identification of the responsible tenure holder for each bore.

5. The **responsible entity** must submit to the **chief executive** a summary of the annual review required under section 376(e)(ii) of the *Water Act 2000*, within 20 business days after each **anniversary day**, or another date agreed to in writing by the chief executive. The annual review must provide an analysis and a statement of whether there has been a material change in the information or predictions used to determine the IAA.

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DEFINITIONS

Anniversary day means each anniversary of the day the first UWIR took effect – 16 December 2019.

Chief executive means the Director-General of the department responsible for administering Chapter 3 of the *Water Act 2000* or the persons delegated the powers of the chief executive as stated in the Water Act (EHP-Chief Executive) Delegation (No. 1) 2017 or subsequent versions.

GAB means the Great Artesian Basin.

Responsible entity means the Office of Groundwater Impact Assessment in accordance with s.368 of the *Water Act 2000*.

Responsible tenure holder means the resource tenure holder identified in the underground water impact report in accordance with s.369 of the *Water Act 2000*.

UWIR means the underground water impact report prepared by the Office of Groundwater Impact Assessment for the Surat Cumulative Management Area dated July 2019.

AGENDA ITEM 3

ATTACHMENT 4

Web notice of approval

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Underground water impact report (UWIR) for the Surat CMA

The Surat underground water impact report (UWIR) assesses the groundwater impacts from petroleum and gas operations in the Surat and southern Bowen basins. It also establishes:

- strategies to manage the predicted impacts
- responsibilities for implementing various aspects of the strategies.

The assessment is completed every 3 years in order to keep up to date with changes to industry development plans and new information about the groundwater flow system.

The Office of Groundwater Impact Assessment (OGIA) (https://www.business.qld.gov.au/industries/mining-energy-water/resources/landholders/csg/ogia) prepared the first UWIR for the Surat CMA in 2012 and the second in 2016. Those reports are now superseded by the current UWIR 2019.

The UWIR 2019 was finalised after a public consultation process and approved by the Department of Environment and Science in November 2019.

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Evidence-based scientific assessments

The OGIA uses models to assess the groundwater impacts of resource operations. These models are based on a range of data including:

- an extensive groundwater monitoring network
- geological mapping
- a comprehensive seismic dataset
- the outcomes of a significant research program to improve understanding of groundwater systems.

Current Surat UWIR

- Full report and appendices: Surat UWIR 2019 (PDF, 37.2MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0019/1461241/uwir-full-report.pdf)
  - Report only: Surat UWIR 2019 (PDF, 30.7MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0020/1461242/uwir-main-report.pdf)
  - Appendices only: Surat UWIR 2019 (PDF, 6.6MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0007/1461238/uwir-appendices.pdf)

Supplementary information

- Consultation submissions summary (PDF, 1.4MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0006/1461237/uwir-submissions-summary.pdf)

- List of current petroleum and gas tenure holders in the Surat CMA (PDF, 419KB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0018/1461240/list-tenure-holders-surat-cma.pdf)
- List of all monitoring points in the water monitoring strategy (XLSX, 100KB) (https://www.dnrme.qld.gov.au/__data/assets/excel_doc/0003/1461243/list-monitoring-points-surat-cma.xlsx)
- List of springs in the Surat CMA (XLSX, 37KB) (https://www.dnrme.qld.gov.au/__data/assets/excel_doc/0004/1461244/list-springs-surat-cma.xlsx)

Previous Surat UWIRs

- 2016 Surat UWIR (PDF, 5.8MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0007/345616/uwir-surat-basin-2016.pdf)
- 2012 Surat UWIR (PDF, 4.1MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0016/31327/underground-water-impact-report.pdf)

Annual reports on the UWIR

The annual reports provide updates on the implementation of the UWIR management strategies.

They also discuss any changes to circumstances that could impact on the predictions made in the UWIR (e.g. changes to development planning by resource authority holders).

- 2018 annual report on the 2016 Surat UWIR (PDF, 1.2MB) (https://www.dnrm.qld.gov.au/__data/assets/pdf_file/0007/1397644/surat-uwir-annual-report-2018.pdf)
- 2017 annual report on the 2016 Surat UWIR (PDF, 1MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0007/1257838/surat-uwir-annual-report-2017.pdf)
- 2014 annual report on the 2012 Surat UWIR (PDF, 2.3MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0012/251310/surat-uwir-annual-report-2014.pdf)
- 2013 annual report on the 2012 Surat UWIR (PDF, 1.7MB) (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0020/123824/surat-uwir-annual-report-2013.pdf)

Note: No annual report was published in 2015 because the 2016 Surat UWIR provides an update on the implementation of management strategies.

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Also consider…

- Conduct a bore search (https://www.dnrme.qld.gov.au/business/mining/surat-cma/bore-search) for information about the predicted impacts of water extraction on individual bores.
- Read about cumulative management areas (https://www.business.qld.gov.au/industries/mining-energy-water/resources/petroleum-energy/legislation-policies/water-environmental/cumulative).
- View bore reports (https://www.business.qld.gov.au/industries/mining-energy-water/water/bores-and-groundwater/bore-reports) for registered bores in Queensland.
- Search for resource authority applications (https://www.business.qld.gov.au/industries/mining-energy-water/resources/landholders/searches) on your land and surrounding area.
- Get involved in groundwater monitoring for resource impacts (https://www.business.qld.gov.au/industries/mining-energy-water/resources/landholders/csg/groundwater-monitoring).
- Access groundwater monitoring data (https://water-monitoring.information.qld.gov.au/).

Last reviewed: 06 Nov 2019

Last updated: 17 Nov 2019

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AGENDA ITEM 3

ATTACHMENT 5

Letter to landholders about UWIR 2019 approval and release

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RTI Act 2009

Queensland Government
Office of
Groundwater Impact Assessment
Department of
Natural Resources Mines and Energy

18 November 2019

<Contact_person>
<Company>
<Address1>
<Address2>
<Address3>

Dear Sir/Madam

APPROVAL OF THE UNDERGROUND WATER IMPACT REPORT FOR THE SURAT CUMULATIVE MANAGEMENT AREA 2019

I am writing to advise you of the approval of the Underground Water Impact Report for the Surat Cumulative Management Area 2019 (the report).

On 28 May 2019, the Office of Groundwater Impact Assessment (OGIA) released a draft report for consultation. Public consultation closed on 8 July 2019. OGIA amended the draft report having regard to the submissions received and stakeholder comments at public information sessions. On 2 August 2019, OGIA submitted the amended report to the Chief Executive of the Department of Environment and Science (DES) for consideration for approval.

The Chief Executive of DES has now approved the report and it will take effect from 16 December 2019. A copy of the notice about the approval of the report is enclosed.

OGIA has prepared a submission summary that provides information about the consultation process, the issues raised during consultation and the way OGIA has dealt with the submissions in amending the draft report. Copies of the report and the submission summary can be obtained from the OGIA website at www.business.qld.gov.au/ogia or can be requested by email at SuratUWIR@dnrme.qld.gov.au or by telephone on 13 74 68.

If you would like specific information on predicted impacts at the location of your water bore, visit the OGIA website where you can search details about the predicted impact by entering the registered number (RN) of your bore. The RN is issued by the Department of Natural Resources, Mines and Energy (DNRME). If you do not know the RN of your bore, you should contact your local DNRME office.

If you have any questions about compliance with the obligations of the report, please visit the DES website at www.des.gld.gov.au or telephone DES on 13 74 68.

Yours faithfully,

s.73 Irrelevant information

Sanjeev Pandey
Executive Director
Office of Groundwater Impact Assessment

Enc

Published on RTI/IP Disclosure Log RTI/IP 2020

1 William Street Brisbane
PO Box 15216 City East
Queensland 4002 Australia
Telephone +61 7 3199 7321
www.business.qld.gov.au/ogia
ABN 59 020 847 551

AGENDA ITEM 3

ATTACHMENT 6

Public notice about UWIR 2019 approval

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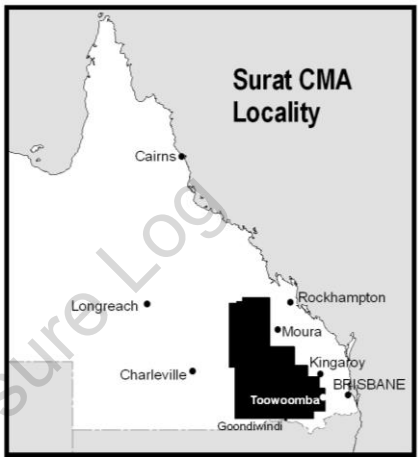
RTI Act 2009

OFFICE OF GROUNDWATER IMPACT ASSESSMENT
PUBLIC NOTICE

WATER ACT 2000
Section 386

APPROVAL OF THE UNDERGROUND WATER IMPACT REPORT FOR THE SURAT CUMULATIVE MANAGEMENT AREA 2019

1. Purpose
The Office of Groundwater Impact Assessment (OGIA) gives notice that the Underground Water Impact Report for the Surat Cumulative Management Area 2019 (the report) has been approved by the Chief Executive of the Department of Environment and Science. The approved report takes effect from 16 December 2019.



2. Description of area
The report relates to the Surat Cumulative Management Area. The boundary of the area is identified in the adjacent map. A more detailed map is available from the OGIA website.

3. Availability of the report
A copy of the report can be obtained from the OGIA website at www.business.qld.gov.au/ogia or can be requested by email on SuratUWIR@dnrme.qld.gov.au or by telephone on 13 74 68.

4. Enquiries
Enquiries should be directed to OGIA by email on SuratUWIR@dnrme.qld.gov.au or 13 74 68.

Sanjeev Pandey
Executive Director
Office of Groundwater Impact Assessment

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Date : 20/05/2020 8:53:33 AM
From : "Hugh Marshall"
To : "Sanjeev Pandey" , "'Gail Godwin-Smith'" , "'janetreddan@s.73 Irrelevant" , "Andrew Barger" , "s.73 Irrelevant inf westsidecorporation.com'" , "'Georgy Mayo'" , "'Lookout Feedlot'" , "'Georgina Davis'"
Cc : "'Nick Cook'" , "'Colin Cassidy'"
Subject : OGIA Expenditure Advisory Committee meeting papers
Attachment : Agenda Item 1 - Approval of minutes - 29 January 2020 meeting.docx;Agenda Item 2 - Update on OGIA's Activities.docx;Agenda Item 2, attachment 1, gazettal notice.pdf;Agenda Item 3 - Update on financial position for 2019-20.docx;Agenda Item 4 - Planned expenditure 2020-21.docx;image001.jpg;

All,

Thank you for your patience. Please find attached the meeting papers for tomorrow's meeting of the EAC.

The Microsoft Teams meeting link is copied, below, for your reference.

Cheers,
-Hugh

Queensland Government

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AGENDA ITEM 1 – APPROVAL OF MINUTES OF MEETING – 29 JANUARY 2020

MINUTES OF MEETING NO. 16

EXPENDITURE ADVISORY COMMITTEE

DATE:	Wednesday, 29 January 2020	
VENUE:	Meeting Room 1.08, Level 1, 1 William Street, Brisbane	
TIME:	1–4 pm	
	EAC members	**OGIA secretariat**
ATTENDEES:	Gail Godwin-Smith, Chair (GGS)	Sanjeev Pandey, Executive Director (SP)
	Georgina Davis (GD)	Hugh Marshall (HM)
	Janet Reddan (JR)	
	Andrew Barger (B1)	
	Andrew Brier (B2)	
APOLOGIES:	Matthew Paull	
GUESTS:	Nil	

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OPENING

- The Chair, GGS, opened the meeting at 1.30 pm.
- GGS noted and welcomed the appointment of new member JR.
- SP detailed recent amendments to the EAC terms of reference:
    - removed mandatory requirement to draw the Chair from the GasFields Commission (GFC), due to the changing role of OGIA
    - changed membership from “a Chair and approximately five members” to “approximately six members including a Chair”
    - minor updates e.g. legislation dates, position titles and document titles.
- Regarding the membership, SP proposed:
    - to add a member from the coal mining industry ahead of the next meeting.
    - to invite the CEO of the GFC as an observer in the EAC meetings
- GGS noted the appointment of new member GD and welcomed her to the committee. GD joined the meeting at 2:30pm.

Outcome

- The EAC endorsed the proposal to add a member from the coal mining industry and inclusion of the CEO of the GFC as an observer.

AGENDA ITEM 1 – MINUTES OF MEETING – 7 JUNE 2019

- The Committee considered the minutes from the meeting of 7 June 2019.
- GGS congratulated SP and OGIA for the work completed since the last meeting: draft UWIR, consultation process, community and industry engagement well received and majority positive, only minor tweaks required from draft to final reports, modelling excellent, approval from DES, UWIR 2019 well received with good readability.
- GGS moved that the minutes be noted as a true and accurate recording of the meeting, seconded by B2.
- SP noted that the recorded actions are completed.

Outcome

- The EAC endorsed the minutes.

AGENDA ITEM 2 – FINAL FINANCIAL POSITION FOR 2018-19

- SP presented OGIA introduction/overview slides for the benefit of new member JR.
- B2 noted that the new groundwater impact explanatory video is excellent and effective, to which the chair and the members agreed.
- In response to a question from JR, SP clarified that tenure holders pay for monitoring bores and record the data, which is provided to OGIA.
- SP spoke to OGIA's 2018-19 closing financial position, highlighting that the underspend had been within 4% of the budget, as summarised in Agenda Paper 3.

Outcome

- The EAC noted the agenda paper with no issues of concern.

AGENDA ITEM 3 – UPDATE ON OGIA'S ACTIVITIES

- SP presented slides detailing OGIA's activity since the last EAC meeting, highlighting increasing operational activities relating to provision of data.
- SP mentioned a number of journal papers published by OGIA in recent months and a number of OGIA staff chaired, presented at and attended the "AGC 2019" event. GGS noted Scott Mason reported back favourably to the QGABAC about the event.
- GGS noted the enormous body of work completed since the June meeting.
- SP also briefed about OGIA's recent personnel movements.

Outcome

- The EAC noted the agenda paper and the presentations.

AGENDA ITEM 4 – WORK PROGRAM FOR INCLUSION OF COAL MINING IMPACTS

- JR enquired generally about the coal mining levy funding process and how it is separate to the P&G levy.

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- In response to queries from GGS and GD, SP provided an overview of the consultation process by DNRME in establishing the mining levy, and by DES in amending the Surat CMA for inclusion of coal mines.
- In response to queries from various members, SP also provided an overview of the mining levy structure and the invoicing process.
- The committee members noted and acknowledged the tight timeframe for raising the mining levy and the potential challenge for mining companies, as they may not have budgeted for the pending expense.
- In response to a query from GD on bad debts, SP advised that there is one relating to Brisbane Petroleum, for approximately $25k.
- The committee also noted the ambitious and tight timeline for the next UWIR in 2021.

Outcome

- The EAC noted the agenda paper and clarifications provided, with no further issues.

AGENDA ITEM 5 – PLANNED MINING FUNCTIONS EXPENDITURE IN 2019-20

- In response to queries from GGS, GD and JR regarding the perception of cross-subsidy between P&G and mining levy and transparency, SP advised that:
    - the perception is likely and will be managed through ongoing engagement with assistance from the EAC members, who would relay messages to their respective sectors and stakeholders; and
    - the levy model accounts for separation of functions and activities relating to P&G and mining.
- GD asked if payers would receive detailed budgets, to which B2 advised that there has been no such request from P&G levy payers.
- In response to queries regarding the potential CMA in the Galilee Basin, SP advised that formal advice on the matter was provided to DES in 2017.

Outcome

- The EAC noted the clarifications as above and endorsed the planned coal mining expenditure.

AGENDA ITEM 6 – UPDATE ON FINANCIAL POSITION FOR 2019-20

- SP spoke to the agenda paper and highlighted that OGIA's end of financial year forecast expenditure was 11% under budget, not taking into account amendments relating to coal mining work.
- SP noted future budget papers will split coal and P&G work areas.
- JR asked where the EAC costs are shown. HM advised about $2,900 of EAC costs in 2018-19, comprising airfares, taxis and accommodation to attend EAC meetings.

Outcome

- The EAC noted the agenda paper with no issues raised.

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OTHER BUSINESS

- SP introduced OGIA's directors, Steve Flook and Gerhard Schöning, to the EAC.
- GD suggested that Queensland's framework is probably world-leading, especially the modelling, and queried if there is another jurisdiction looking at both gas and coal.

NEXT EAC MEETING

- The next EAC meeting in May-June 2020 is to be confirmed with reasonable notice.

CLOSE

- The Chair closed the meeting at 4.18 pm.

RECOMMENDATION

That the EAC ~~note~~ endorse the minutes of meeting~~is paper~~.

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AGENDA ITEM 2 – UPDATE ON OGIA'S ACTIVITIES

PURPOSE

To provide an update on the Office of Groundwater Impact Assessment's (OGIA) activities since the last EAC meeting on 29 January 2020.

BACKGROUND

In the last meeting, an update was provided on the approval of the Surat Underground Water Impact Report (UWIR) by the Department of Environment and Science (DES), which took effect on 16 December 2019.

Amendments made to the Water Regulation 2016 on 28 November 2019 established a structure for OGIA's mining-related functions and allowed a levy to be raised. In January 2022, DES gazetted a notice to amend the Surat cumulative management area (CMA) to include coal mining tenures in the Surat and Clarence-Moreton basins. This has triggered a statutory requirement to update the existing UWIR for relevant coal mining impacts in the Surat CMA.

UPDATES

Amendment of the Surat CMA

- The Surat CMA was formally amended through a gazette notice (Attachment-1) on 31 January 2020.
- OGIA has received a notice from DES to amend the UWIR for coal mining impacts by 1 December 2021.

Preparatory work for mining functions

- OGIA undertook extensive engagement with industry representative, including:
    - an introductory scene-setting and Q&A session at QRC (7 February 2020) on the roll out of OGIA's mining related functions
    - one-on-one engagements in February and March 2020 with affected tenure holders including:
        - New Hope Group (New Acland and Elimatta)
        - Glencore (Wandoan Coal Project)
        - Peabody (Wilkie Creek)
        - CS Energy (Kogan Creek)
        - Yancoal (Cameby Downs)
        - Queensland Power/Intergen (Commodore)
        - Stanmore (The Range).
- The core focus of the above engagements was to provide:
    - the legislative context of OGIA's roles and functions
    - an overview of the work that OGIA has done so far in the Surat CMA for CSG impact assessment
    - the structure and process for the mining levy
    - the value that OGIA adds in assigning and managing groundwater impacts; and

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- a broad program for preparing the next UWIR in December 2021.

2019-20 mining levy budget and invoicing

- The Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy approved the OGIA 2019-20 budget of $463k (including contingency of $24k) on 30 March 2020 for mining functions.
- Invoices were sent to relevant coal mining tenure holders on 15 April.

Modelling

- A preliminary approach to next-generation modelling is developed and currently being tested. It is an ambitious and revolutionary approach and outputs may not be available to include in the UWIR 2021 due to the long lead time.
- The modelling strategy is currently being finalised for coal mining areas.

Technical assessments and conceptualisation

- This has been the core focus in last three months, particularly in and around the coal mining areas and around some spring sites.
- A significant effort is put into collecting data from coal companies in relation to:
    - geology – coal exploration holes and geophysical logging
    - groundwater – previous assessments, monitoring and hydraulic parameters
    - mine plans – spatial and temporal data on pit geometry.
- While the majority of the data is received, there have been delays due to the COVID-19 situation and challenges associated with data formats and confidentiality requests.
- A review of exiting assessments by mine proponents is largely completed and hydrogeological conceptualisation is underway.
- Further analysis on faults has continued and the related report is near finalisation.
- A scope and strategy for improving the geological model is developed and progressing into implementation.
- A number of field projects are suspended or delayed due to the COVID-19 situation.
- New approaches involving ‘signal processing’ techniques for the analysis of monitoring trends are being tested with expert input.

Other engagements and activities

- A meeting with members of the Industry Reference Group was held in February 2020. This was the first meeting since the UWIR 2019 took effect.
- The Environment Approvals Division of the commonwealth Department of Agriculture, Water and the Environment has been engaging with the industry, regulators and OGIA through various workshops and meetings in relation to the Joint Industry Framework (JIF) to streamline post-approval compliance.
- As part of the input to the above process, OGIA has also engaged with DES to develop a common understanding on regulatory process for management of impacts on bores and GDEs. As a result of this process, OGIA developed process flow diagrams and provided these to regulators and the industry.
- Planned engagement with landholders on OGIA’s roll-out of its mining functions has been postponed due to the COVID-19 situation.

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UWIR implementation and data maintenance

- The bi-annual implementation report was sent to DES in early February 2020.
- The quantum of data received by OGIA continues to increase. To ensure that the data is stored, managed and processed in a manner that meets statutory obligations, reduces corporate/technical risk and improves the efficiency by which OGIA delivers outcomes, OGIA has developed a data management strategy.
- OGIA developed a range of technical workflows to support the UWIR 2019. For example, determining water use for individual bores and assessing impacts on terrestrial ecosystems. These workflows have been streamlined into Python code, improving the repeatability and efficiency of applying these assessments.
- A contractor is commissioned to compile metadata for mines that are reported to be taking more than 200 ML/year of associated water.

Data provision and additional model runs

- Increasingly, more and more requests are being made of OGIA by industry and research organisations to provide data, information and additional model scenario runs for various regulatory approvals or research. This requires substantial resourcing to prepare agreements, data, model runs, review and quality checks and compilation.
- During last four months, OGIA has received 22 data requests – mainly by the resource industry – including the following:
    - Three requests (all completed) for running the OGIA regional groundwater flow model for multiple scenarios. It is understood the output is to be used to inform applications for relevant environmental approvals.
    - Six requests from the Department of Environment and Science relating to bore assessments and immediately affected area impact timing.
    - Other requests from internal DNRME and research bodies relating to map and bore assessment information, geology and water levels.
- OGIA also assisted the GasFields Commission Queensland in dealing with queries relating to the Chinchilla Beneficial Use Scheme – by compiling associated water volumes for wellfields feeding to the Kenya treatment plant.

Advice

- Section 458 of the *Water Act 2000* provides that "the chief executive [of DES] may give [OGIA] a written direction requiring [OGIA] to advise the chief executive on any matter relating to impacts on underground water caused by the exercise of underground water rights."
- The following requests have been received in the last six months:
    - Application submitted by Westside Corporation to amend Environmental Authority EPPG00783713 to increase activity in PL94 – *completed*
    - Underground Water Impact Report from Santos Ltd for Cooper Basin Oil and Gas Fields, South West Queensland – *completed*
    - Groundwater Characteristics Monitoring Program from Arrow CSG (Australia) Pty Ltd for PL253, the former Linc Energy site – *completed*

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Publication, reports and conference presentations

- Since January 2020, OGIA has also finalised the following report/s, now made publicly available on the OGIA website:
    - Analysis of water level trends in the Surat CMA.
- Two additional journal articles relating to modelling and the regulatory framework are submitted for consideration.

Recruitment and staffing

- Following various recruitment processes, in late 2019, OGIA secured two principal hydrogeologists, an intermediate hydrogeologist and a GIS/data analyst.
- OGIA has also secured services of additional model experts for 'signal processing' and testing of new techniques for modelling.
- OGIA's acting Business Manager, Mr Ben Sturgess has retired effective from 14 May 2019.
- A new intermediate level position is created for Business Support Officer, which is currently occupied by Mr Hugh Marshall. This is part of an ongoing rationalisation of the business team.

RECOMMENDATION

That the EAC note the update on OGIA's core activities since the last meeting.

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AGENDA ITEM 3 – UPDATE ON FINANCIAL POSITION FOR 2019-20

PURPOSE

To provide an update on the budget and expenditure position for 2019-20.

BACKGROUND

On 7 June 2019, the Expenditure Advisory Committee (EAC) endorsed the Office of Groundwater Impact Assessment's (OGIA) planned expenditure for its petroleum and gas (P&G) functions.

On 15 July 2019, the OGIA 2019-20 budget of $4,376k (inclusive of $225k contingency) was approved by the Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy (the Minister).

The $225k contingency is held separately from the budget and unused funds refunded to levy payers with the 2020-21 levy.

On 30 March 2020, the Minister also approved additional 2019-20 budget of $463k (inclusive of $24k contingency) for OGIA's mining functions that came into effect from January 2020, following the endorsement of this additional budget by the EAC on 29 January 2020.

This gave a total working budget of $4,590k plus $249 contingency.

UPDATES

Overall financial outlook

- OGIA's end of financial year (EOFY) forecast expenditure for P&G and mining related functions is currently $3,288k. This is about 28% under budget.
- Accounting for the anticipated synergies between the P&G and mining functions, the effective underspend would be about 22%. For comparison, in the last two years the average underspend has been within 5%.
- The significantly higher underspend is primarily due to a combination of factors:
    - Delays in anticipated amendment of the Surat CMA for mining, which affected project and resource planning, resulting in subsequent delays in committing to some project activities.
    - The effect of the COVID-19 situation, severely impacting on a number of field activities that were planned for the second half of the financial year.
    - Staff movement in the first half of the financial year, resulting in some vacancies during the recruitment period.
    - Extended unpaid leave by two staff members.
- Table 1 provides a summary of the financial position. Details about significant variations are provided in subsequent sections.
- The end of year forecast includes $2,864 for P&G and $424 for mining functions.
- The expenditure on mining functions has been on par with budget (about 3% underspend).

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Table 1 Financial position as at 30 April 2020 (,000)

	EOFY budget	YTD actual	EOFY forecast costs			Forecast variance
			P&G	*Mining*	Total	
Employees	*$2,587*	*$1,451*	*$1,544*	*$226*	*$1,770*	*$817*
Agency staff	*$259*	*$216*	*$369*	*$54*	*$423*	*$(164)*
Personnel subtotal	$2,846	$1,667	*$1,914*	*$280*	$2,193	$652
Corporate costs	$567	$420	*$445*	*$67*	$512	$55
Supplies and services	$455	$312	*$261*	*$39*	$301	$154
Contractors and consultancies	$723	$117	*$244*	*$38*	$282	$441
Other	$0	$0	*$0*	*$0*	$0	$0
Total	**$4,590**	**$2,516**	***$2,864***	***$424***	**$3,288**	**$1,302**
Contingency	$249	$0	*$0*	*$0*	$0	$249

Sums may differ due to rounding.

Personnel

- The EOFY forecast for personnel is $652k less than the budget – partly due to synergies between the P&G and mining functions and partly due to unfilled positions during the staff movement and recruitment period, and extended unpaid leave by two staff members.

Supplies and services

- A breakdown of supplies and services expenses is provided in Table 2.
- Supplies and services include costs for items such as materials, analytical services, recruitment and advertising services, telephone and computing equipment, printing and travel.
- The overall EOFY position for supplies and services is forecast to be $301k, which is $154k under budget. The underspend is primarily due to less materials and lab analysis resulting from reduced field work due to the COVID-19 situation ($19k), efficiencies in advertising during the UWIR release ($16k) and a DNRME Finance cost allocation error in information technology ($67k), to be corrected* before June.

Table 2 Supplies and services costs as at 30 April 2020

	EOFY budget	YTD actual	EOFY forecast	
			Costs	Variance
Accommodation costs	$7,949	$6,145	$6,633	$1,316
Advertising and promotion	$16,667	$753	$1,031	$15,636
Information technology	$209,392	$158,323	$134,398*	$74,994
Legal fees	$2,000	$0	$0	$2,000
Materials and consumables	$22,224	$711	$1,122	$21,102
Minor plant and equipment	$6,667	$0	$0	$6,667
Motor vehicles	$4,067	$5,782	$6,043	$(1,976)
Printing and postage	$5,778	$19,767	$20,130	$(14,352)
Software licensing	$121,452	$81,800	$91,220	$30,232
Testing and analytical	$0	$0	$0	$0

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	EOFY budget	YTD actual	EOFY forecast	
			Costs	Variance
Training and recruitment	$11,110	$2,817	$3,202	$7,908
Travel	$8,779	$19,466	$19,466	$(10,687)
Other expenses	$38,640	$16,766	$17,646	$20,994
Total	**$454,725**	**$312,329**	**$300,890**	**$153,835**

Sums may differ due to rounding.

Corporate costs

- Corporate costs include the "internal service charge" which includes accommodation at 1 William Street (including 1WS ICT infrastructure charges), invoicing, payroll, web and communications, finance and human resources and in-house legal services.
- A proportion of corporate costs – $55k forecast EOFY – has been apportioned to mining functions.

Contractors and consultancies

- OGIA uses contractors and consultants to supplement its core expertise. In most instances, contractors are commissioned as team members for better integration with project work and to keep full-time equivalent (FTE) numbers within the allocated limit.
- This arrangements provides OGIA the flexibility to accommodate the varying complexity and scope of technical work as required. As a result, this is typically the most variable part of the budget.
- Table 3 provides a breakdown of the "Contractors and consultancies" line item from Table 1.
- EOFY year expenditure is expected to be $282k, which is $441k under budget and a major contributor to the overall underspend.
- The underspend primarily relates to cancellation of field work, accounting for long-term modelling contractor Dr Mark Gallagher as an agency employee, and synergies across the P&G and mining functions.

Table 3 Contractors and consultancies costs as at 30 April 2020 (,000)

	EOFY budget	YTD actual	EOFY forecast	
			Costs	Variance
Regional groundwater modelling	$234	$56	$126	$108
Hydrogeological assessments	$359	$4	$40	$319
Environmental value assessment and spring research	$4	$0	$33	$(29)
Data management and business support	$126	$57	$83	$43
Total	**$723**	**$117**	**$282**	**$441**

Sums may differ due to rounding.

- Some of the modelling activities in the 1st and 2nd quarters of the financial year were delayed due to staff movement and recruitment.

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- The modelling related contracting expenses have been on hiring modelling experts (DHI and Dr John Doherty) to develop and progress next-generation modelling approaches and commissioning geological interpretations.
- As stated in Agenda paper 1, field activities relating to hydrogeological investigation of Horrane Fault, a tracer study for Condamine Alluvium and verification of UWIR Table G-3 water bores, are suspended – resulting in a large underspend in this category.
- About $33k unplanned expenses in environmental values assessment are for technical advice and expert input on terrestrial GDEs matters.

RECOMMENDATION

That the EAC note the update on OGIA's financial position for 2019-20 including the forecast end of financial year position.

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AGENDA ITEM 4 – PLANNED EXPENDITURE IN 2020-21

PURPOSE

To provide details of the planned expenditure for the Office of Groundwater Impact Assessment (OGIA) in 2020-21.

BACKGROUND

OGIA is an independent entity housed within the Department of Natural Resources, Mines and Energy (DNRME). It is fully funded through an industry levy which is paid into a statutory 'Groundwater Impact Assessment Fund'.

The *Water Act 2000* provides that OGIA prepare its annual budget and consult with a relevant advisory body on the proposed expenditure, and that the budget be approved by the Minister for Natural Resources, Mines and Energy before the levy is raised. OGIA established the Expenditure Advisory Committee (EAC) as a relevant advisory body for that purpose.

OVERVIEW

- The combined budget for OGIA's P&G and mining functions in 2020-21 is $4,592k, comprising $3,821k for the P&G functions and $771k for the mining functions.
- Despite additional mining functions for the whole financial year, this budget is on par with 2019-20 due to rationalisation of business support functions and maturity of process and workflows resulting in improved efficiencies
- Similar to previous years, a contingency fund of $250k (approx. 5% of the budget) will be held and reported on separately from the OGIA operating budget. Under legislation, it is not possible for OGIA to raise a supplementary levy during the year.
- Unspent levy funds are returned to levy payers once the financial year closes.
- The planned expenditure for 2020-21 is summarised in Table 1. Significant items are discussed in the following sections.

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Table 1 Planned expenditure 2020-21 (,000)

Cost item	Budget 2020-21			Budget 2019-20	Change
	P&G	***Mining***	**Total**		
Employees	*$1,693*	*$336*	*$2,029*	*$2,587*	*$(558)*
Agency staff	*$718*	*$142*	*$860*	*$259*	*$601*
Personnel	*$2,411*	*$478*	**$2,889**	$2,846	$43
Consultancies and contractors	*$724*	*$154*	**$878**	$723	$155
Corporate costs	*$426*	*$86*	**$512**	$567	$(55)
Supplies and services	*$260*	*$53*	**$313**	$455	$(142)
Total (excl. contingency)	***$3,821***	***$771***	**$4,592**	**$4,590**	**$2**
Contingency provision	*$208*	*$42*	**$250**	$249	$1

Sums may vary due to rounding

PERSONNEL EXPENSES

- The estimated employee budget for 2020-21 is $2,889k. This is slightly higher than previous years to provide additional technical support in hydrogeology and modelling.

There is also rationalisation with ongoing modelling contractor, s.73 Irrelevant information recognised as an employee cost.

- The budget includes an estimated 15 payroll full-time equivalents (FTEs) and 4.6 contract FTEs through agencies. The arrangement provides flexibility in managing personnel costs.

CONTRACTORS AND CONSULTANCIES

- The 2020-21 budget for contractors and consultants is $878k – an increase from the previous year – primarily because a number of field activities scheduled for the current financial year are now moved to the next financial year.
- Breakdown of expenditure is summarised in Table 2.

Table 2 Planned expenditure for contractors and consultants 2019-20 (,000)

Cost item	Budget		
	2020-21	2019-20	Change
Groundwater modelling	$330	$234	$96
Hydrogeological assessment	$288	$359	$(71)
Environmental values assessment and springs research	$110	$4	$106
Data management	$150	$126	$24
Total	**$878**	**$723**	**$155**

Sums may vary due to rounding

- The estimated cost for groundwater flow modelling in 2020-21 is $330k, up $96k from the previous year.
- There is $290k associated with new contracting and expert services to supplement OGIA's core capabilities in this area. An offsetting reduction in this item is that of modelling contractor s.73 Irrelevant information s costs moving into Personnel Expenses.
- Work will continue to develop next-generation modelling techniques, modelling of coal mine areas and refining the regional groundwater flow model in specific areas.
- The estimated cost for hydrogeological assessment for 2019-20 is $288k – allocated for investigations relating to Horrane Fault, stratigraphic interpretations and investigating water bores listed in table G-3 of the UWIR 2019.
- The estimated cost for environmental values assessment is $110k relating to field verification of terrestrial GDEs and verification of environmental values in priority areas.
- The budget allocation under the data management category is for metering of non-CSG water use through a contracting arrangement with the University of Queensland and programming support to automate some data analysis work flows.

CORPORATE COSTS

- The latest DNRME Corporate Finance advice is that the forecast for corporate services is $512k, which is the same as 2020-21.
- Corporate costs comprise two main categories: centrally managed costs ($308k) and corporate services support costs ($204k). As DNRME is yet to finalise its corporate budgets, these figures are subject to change.

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- The corporate service charge methodology is determined by the Chief Financial Officer and endorsed by the Director-General and the DNRME Board.

SUPPLIES AND SERVICES

- Supplies and services cover a range of costs as per Table 3 below, including information and communication technology (ICT) hardware and software, consumables, advertising, travel, motor vehicles and office supplies.
- The estimated cost for supplies and services for 2020-21 is $313k, a significant decrease. This is mostly attributable to an overall decrease in advertising, materials/ consumables, software and depreciation (other) costs.
- Software budget items have decreased by $79k compared to 2019-20. Significant budget items include $78k for the ESRI ArcGIS package (which was previously paid for at a corporate finance level in DNRME), Schlumberger geology software ($83k) and ESdat licensing ($25k).

Table 3 Planned expenditure for supplies and services 2019-20

	Budget		
Cost item	**2020-21**	**2019-20**	**Change**
Accommodation	$6,500	$7,949	$(1,449)
Advertising and promotion	$1,000	$16,667	$(15,667)
ICT systems and hardware	$59,591	$65,217	$(5,626)
ICT software	$187,000	$265,627	$(78,627)
Legal fees	$0	$2,000	$(2,000)
Materials and consumables	$1,000	$22,224	$(21,224)
Minor plant and equipment	$0	$6,667	$(6,667)
Motor vehicles	$5,000	$4,067	$933
Printing, postage and freight	$5,000	$5,778	$(778)
Testing and analytical	$1,000	$0	$1,000
Training and recruitment	$11,000	$11,110	$(110)
Travel	$7,000	$8,779	$(1,779)
Other	$29,050	$38,640	$(9,590)
Total	**$313,141**	**$454,725**	**$(141,584)**

Sums may vary due to rounding

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RECOMMENDATION

That the EAC endorse the budget for 2020-21 subject to pending confirmation of some costs from Corporate Finance relating to corporate services and ICT.

From: Hugh Marshall
To: Sanjeev Pandey
Cc: Krysten Meneguzzo
Subject: FW: OGIA Current structure
Date: Monday, 25 May 2020 3:32:45 PM

Sanjeev,

I've now entered budget line items into the budget tool (via AFO) to match the budget that we presented to the EAC.

This was a preliminary step, testing out the process – it's clunky and I can't seem to cash-flow manually (i.e. other than evenly across the 12 months), but on the whole, I think it's workable.

I'll next export the resultant budget lines per month, for review and discussion by us together.

Notes:

- I've entered all "Contractors and Consultants" using the "Cont. Prof/Tech" GL, 523019. We should use this GL for all POs other than agency staff.
- I've entered all "Non-FTE" lines using a single Agency Staff GL, "523001". We should use this for all agency staff POs.
- I've entered each theme's total budget (e.g. $330k for modelling) against the theme's "general" (catch-all) WBS element, except where obvious distinctions exist, such as Mark G. and TAP (each of which has its own WBS element within Modelling and Hydro. respectively).
    - To budget against individual projects (e.g. "Horrane Fault assessment"), we'd need to create them as WBS elements before budgeting.
    - Budgeting against themes is sufficient for our purposes.
- The HR budget data entry sheet has output a "computer systems" figure ($5k) that is slightly greater than our EAC-approved figure ($1k). I've absorbed the difference in "ICT".
- I've entered 0-FTE lines for every unbudgeted position (e.g. Business Manager), to ensure they are not forgotten about.
- Once all costs were in and matching the EAC budget, I then took the monthly expense totals and entered them as matching revenue figures, but…
    - … I've just realised that this was wrong, because (a) I should have entered them as negative amounts, and (b) I didn't add in the "Contractors and Consultants" monthly totals from the WBS data entry screen, so…
    - … I'll need to delete and re-enter these revenue figures, and…
    - … I want to check with Finance to ensure this is the right way to record our revenue budget, i.e. exactly negating our expense budget total each month.

Cheers,
-Hugh

From: HADDOW Cameron <Cameron.Haddow@dnrme.qld.gov.au>
Sent: Monday, 25 May 2020 10:43 AM
To: MARSHALL Hugh
Subject: RE: OGIA Current structure

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Thanks mate – can you load the fte's in the budget tool and provide comments for anything that is like that

---

From: MARSHALL Hugh <Hugh.Marshall@dnrme.qld.gov.au>
Sent: Monday, 25 May 2020 9:09 AM
To: HADDOW Cameron
Cc: PANDEY Sanjeev
Subject: RE: OGIA Current structure

Cam,

Please note that we had one new position (PN 755293) created and permanently appointed (emp. 1449957) in April, so the FTE count for 20-21 should be at least +1.

Cheers,
-Hugh

From: MARSHALL Hugh
Sent: Friday, 22 May 2020 3:33 PM
To: HADDOW Cameron
Cc: FITZGERALD Tania; SKILLINGTON Jill
Subject: RE: OGIA Current structure

Cam,

See attached, our current org chart.

Cheers,
-Hugh

From: HADDOW Cameron <Cameron.Haddow@dnrme.qld.gov.au>
Sent: Friday, 22 May 2020 3:08 PM
To: MARSHALL Hugh
Cc: FITZGERALD Tania; SKILLINGTON Jill
Subject: OGIA Current structure

Gidday mate

Could you please send me a copy of your org structure that's current today.

OGIA numbers we have to build to for the FY21 is 13 FTEs

I just want to see what you look like right now.

Thanks
Cam

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Date : 3/03/2021 2:16:16 PM
From : "Hugh Marshall"
To : "Sanjeev Pandey"
Subject : Budget review for EAC
Attachment : 20-21 budget tracking.xlsx;image001.jpg;

Sanjeev,

As discussed, attached is the budget tracking spreadsheet, including the position as at 31 January, for your review in relation to preparing the EAC papers.

EAC papers on G drive: G:\OGIA\C_Business\C04_Expenditure Advisory Committee\Meetings\2020-21\2021-03 March

Cheers,
-Hugh

Queensland Government

Hugh Marshall
Business Support Officer
Office of Groundwater Impact Assessment
Department of Regional Development, Manufacturing and Water
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	20-21 budget EAC fixed	Committed	*Available*	*Planned*	Forecast (+/-)	31 January Actuals	EAC budget	Var. $	Var. %
FTEs subtotal; 15.09 FTEs	$2,029,000	$1,834,915	*$194,085*		-$194,000	$1,101,745	$1,183,583	-$81,839	-7%
PO3, Doug (now Michael)	s.73 Irrelevant information								
PO5, vacant (now Alex, PO4)									
Agency subtotal	$860,000	*$864,120*	*-$4,120*		-$202,000	*$436,923*	$501,667	-$64,744	-13%
Project Manager	s.73 Irrelevant information								
Data Scientist/Hydrogeo									
Mark G.									
Michael Veen (PO3)									
Moya T. (AO8)									
Mick S. (PO6)									
Alex F. (PO4)									
Ben R. (AO6)									
Des O. (PO6)									
PERSONNEL TOTAL	**$2,889,000**	**$2,699,035**	***$189,965***		**-$396,000**	***$1,538,667***	$1,685,250	-$146,583	-9%
Modelling subtotal	$330,000	$259,512	*$70,488*		-$10,000	*$117,508*	$192,500	-$74,992	-39%
Watermark - s.73 Ir	*$40,000*	$56,000	*-$16,000*		+$0	$9,870	$23,333	-$13,463	-58%
DHI - s.73 Irreleva	*$100,000*	$104,895	*-$4,895*		+$0	$40,515	$58,333	-$17,818	-31%
Chris Nicol	*$90,000*	$68,813	*$21,187*		+$30,000	$37,318	$52,500	-$15,182	-29%
Seismic Depth Conversion - UQ	*$80,000*	$29,804	*$50,196*		-$50,000	$29,804	$46,667	-$16,862	-36%
KCB Condamine modelling	*$30,000*		*$30,000*				$17,500	-$17,500	-100%
Testing Cloud Computing	*$20,000*		*$20,000*		+$10,000		$11,667	-$11,667	-100%
Hydrogeology subtotal	$288,000	$109,898	*$178,102*		-$8,000	*$102,101*	$168,000	-$65,899	-39%
AGE s.73 Ir	*$0*	$40,480	*-$40,480*	*$54,480*	+$14,000	$51,907	$0	+$51,907	+100%
KCB s.73 Irrelev	*$0*	$14,818	*-$14,818*		-$7,000	$14,817	$0	+$14,817	+100%
Horrane Geophysical survey/Mon Data	*$150,000*		*$150,000*		+$50,000		$87,500	-$87,500	-100%
Condamime Tracer study	*$25,000*		*$25,000*		-$25,000		$14,583	-$14,583	-100%
Table G-3 bore assessmnt	*$80,000*		*$80,000*		-$40,000		$46,667	-$46,667	-100%
Renata Strat Picks & Report	*$8,000*	$27,600	*-$19,600*		+$0	$27,600	$4,667	+$22,933	+491%
TAP s.73 Irrelevant inf	*$25,000*	$27,000	*-$2,000*		+$0	$7,777	$14,583	-$6,806	-47%
EVs Assessment subtotal	$110,000	$25,252	*$84,748*		-$71,000	*$15*	$64,167	-$64,152	-100%
Field verification of TGDEs	*$40,000*		*$40,000*		-$20,000		$23,333	-$23,333	-100%
Cocktoo	*$0*		*$0*				$0	-$0	+100%
CDM Smith	*$0*	$8,985	*-$8,985*		+$0		$0	-$0	+100%
DSITI Spring Pilot	*$0*	$16,267	*-$16,267*		-$16,000	$15	$0	+$15	+100%
EVs verification in focused areas	*$70,000*		*$70,000*		-$35,000		$40,833	-$40,833	-100%
Data Management subtotal	$150,000	$201,458	*-$51,458*		+$20,000	*$58,950*	$87,500	-$28,550	-33%
KCB metadata compilation	*$0*	$16,761	*-$16,761*		+$0	$16,960	$0	+$16,960	+100%
ThinkPlace	*$0*	$36,222	*-$36,222*		+$0	$36,222	$0	+$36,222	+100%
Migration to GDMP/portal contractor	*$0*	$55,000	*-$55,000*		+$20,000		$0	-$0	+100%
UQ GW use metering	*$90,000*	$93,475	*-$3,475*		+$0		$52,500	-$52,500	-100%
ESDat 'Schedule A'	*$0*		*$0*		+$0	$5,769	$0	+$5,769	+100%
Python Support	*$60,000*		*$60,000*				$35,000	-$35,000	-100%
PROJECTS TOTAL	**$878,000**	**$596,120**	***$281,880***		**-$69,000**	***$278,574***	$512,167	-$233,593	-46%
CORPORATE COSTS TOTAL	**$512,000**	**$512,000**	***$0***		**+$0**	$298,666	$298,667	-$1	-0%
SUPPLIES AND SERVICES TOTAL	**$313,000**	**$313,000**	***$0***		**+$0**	$173,323	$182,583	-$9,261	-5%
GRAND TOTAL	**$4,592,000**	**$4,120,155**	***$471,845***		**-$465,000**	***$2,289,230***	***$2,678,667***	***-$389,437***	-15%
Contingency	$250,000					*Actuals*	*EAC budget*	*Var. $*	*Var. %*
Total including contingency	**$4,842,000**						*31 January*		

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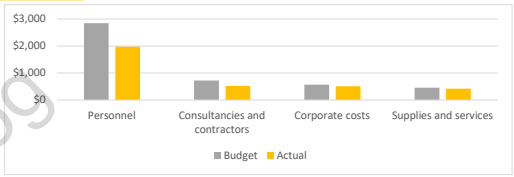
For new year (April-May) EAC meeting

Cost item	Budget 2020-21			Budget 2019-20	Change
	P&G	*Mining*	Total		
Employees	*$1,693*	*$336*	*$2,029*	*$2,587*	*$(558)*
Agency staff	*$718*	*$142*	*$860*	*$259*	*$601*
Personnel	*$2,411*	*$478*	$2,889	$2,846	$43
Consultancies and contractors	*$724*	*$154*	$878	$723	$155
Corporate costs	*$426*	*$86*	$512	$567	$(55)
Supplies and services	*$260*	*$53*	$313	$455	$(142)
Total (excl. contingency)	**$3,821**	**$771**	**$4,592**	**$4,590**	**$2**
Contingency provision	$208	$42	$250	$249	$1

For mid-year (~December) EAC meeting

Cost item	20 (,000)		(,000)
Employees	*$2,587*	*$1,763*	*$824*
Agency staff	*$259*	*$213*	*$46*
Personnel	$2,846	$1,976	$870
Consultancies and contractors	$723	$522	$201
Corporate costs	$567	$512	$55
Supplies and services	$455	$424	$31
Total (excl. contingency)	**$4,591**	**$3,434**	**$1,157**
Contingency provision	$249	$0	$249



Cost item	Budget		
	2020-21	2019-20	Change
Groundwater modelling	$330	$234	$96
Hydrogeological assessment	$288	$359	$(71)
Environmental Values assessment and springs research	$110	$4	$106
Data management	$150	$126	$24
Total	**$878**	**$723**	**$155**

Cost item	Budget		
	2020-21	2019-20	Change
Accommodation	$6,500	$7,949	$(1,449)
Advertising and promotion	$1,000	$16,667	$(15,667)
ICT systems and hardware	$59,591	$65,217	$(5,626)
ICT software	$187,000	$265,627	$(78,627)
Legal fees	$0	$2,000	$(2,000)
Materials and consumables	$1,000	$22,224	$(21,224)
Minor plant and equipment	$0	$6,667	$(6,667)
Motor vehicles	$5,000	$4,067	$933
Printing, postage and freight	$5,000	$5,778	$(778)
Testing and analytical	$1,000	$0	$1,000
Training and recruitment	$11,000	$11,110	$(110)
Travel	$7,000	$8,779	$(1,779)
Other	$29,050	$38,640	$(9,590)
Total	**$313,141**	**$454,725**	**$(141,584)**

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Date : 10/03/2021 4:28:54 PM
From : "Hugh Marshall"
To : "s.73 Irrele qrc.org.au" , "s.73 Irrelevant westsidecorporation.com" , "Gail Godwin-Smith" , "s.73 Irrele@qff.org.au" , "Georgy Mayo" , "janetreddan@s.73 Irrelevan" , "Nick Cook" , "Sanjeev Pandey"
Cc : "Andrew Barger" , "Warwick Squire"
Subject : OGIA Expenditure Advisory Committee meeting
Attachment : Papers EAC 15 March 2021.pdf;EAC_May2020_OGIAActivityUpdate.pdf;

All,

Please find attached [1] the papers for next week's meeting, and [2] the slides presented during the previous meeting. Apologies for the tardy sharing of the minutes and slides in particular.

Cheers,
-Hugh

Queensland Government

Hugh Marshall
Business Support Officer
Office of Groundwater Impact Assessment
Department of Regional Development, Manufacturing and Water
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Level 5, 1 William St, Brisbane QLD 4000
PO Box 15216, City East QLD 4002
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Cheers,
-Hugh

Microsoft Teams meeting

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AGENDA

MEETING No. 18
EXPENDITURE ADVISORY COMMITTEE

DATE: Monday, 15 March 2021

TIME: 11am–12.30pm AEDT (12pm–1.30pm AEST)

VENUE: Meeting Room 6.02, Level 6, 1 William Street, Brisbane

ATTENDEES:

EAC MEMBERS
Andrew Barger
Andrew Brier
Gail Godwin-Smith (Chair)
Georgina Davis
Georgy Mayo
Janet Reddan
Nick Cook

OGIA STAFF
Sanjeev Pandey, Executive Director
Hugh Marshall (secretariat)

OBSERVOR
Warwick Squire, Acting CEO, GasFields Commission Queensland

#	Agenda paper	Details
0	–	Welcome and EAC membership update
1	Agenda paper 1	Approval of minutes of meeting – May 2020
2	Agenda paper 2	Update on OGIA's activities
3	Agenda paper 3	Update on 2020-21 financial position
4	Agenda paper 4	Closing financial position for 2019-20
5	–	Other business
6	–	Next meeting

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AGENDA ITEM 1 – APPROVAL OF MINUTES OF MEETING – MAY 2020

MINUTES OF MEETING NO. 17

EXPENDITURE ADVISORY COMMITTEE

DATE:	Thursday, 21 May 2020	
VENUE:	Online (Microsoft Teams)	
TIME:	11 am–2 pm	
	EAC members	**OGIA secretariat**
ATTENDEES:	Gail Godwin-Smith, Chair (GGS) Georgina Davis (GD) Janet Reddan (JR) Andrew Barger (B1) Andrew Brier (B2)	Sanjeev Pandey (SP) Hugh Marshall (HM)
PROXY:	Georgy Mayo (GM) for Matthew Paull (MP)	
GUESTS:	Colin Cassidy (CC) Nick Cook (NC)	Steven Flook (SF) Gerhard Schöning (GS)

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OPENING

- The Chair, GGS, opened the meeting at 11 am, noting the effect of COVID-19 with the EAC now meeting online.
- GGS welcomed GM as proxy for MP (APPEA) and observers CC (GasFields Commission Qld) and NC (Yancoal Australia).
- HM noted housekeeping – attendees to go ‘mute’ when not speaking.

AGENDA ITEM 1 – MINUTES OF MEETING – 29 JANUARY 2020

- The Committee considered the minutes from the meeting of 29 January 2020.
- GGS congratulated SP and OGIA for the volume and quality of work completed since the last meeting.
- B2 and B1 moved that the minutes be noted as a true and accurate recording of the meeting, seconded by GD and JR.

Outcome

- The EAC endorsed the minutes.

AGENDA ITEM 2 – UPDATE ON OGIA'S ACTIVITIES

- SP noted the process to appoint new and returning EAC members is underway, and that NC was invited to observe as an interim representative from the coal mining industry.
- SP presented slides detailing OGIA's activity since the last EAC meeting.
- SF presented UWIR Implementation slides. The Committee discussed telemetry and metering and the environmental values assessment scope.
- GS presented slides about OGIA's recent modelling work. The Committee discussed where the modelled impact ends and whether it includes seismic shifts, earthquakes, etc.
- The Committee discussed the impact of COVID-19 on OGIA's budget and work program.

  Action: SP to forward the slides to the Committee.

Outcome

- The EAC noted the agenda paper and the presentations.

AGENDA ITEM 3 – UPDATE ON 2019-20 FINANCIAL POSITION

- SP spoke to the agenda paper and highlighted that OGIA's end of financial year forecast expenditure was significantly 28% under budget.
- SP noted the full year budget was levied to P&G at the start of 2019-20, and when the CMA was amended in January to include coal mining, OGIA levied the remainder of the year budget to coal mining companies. Coupled with COVID-19 effects, this produced a significant underspend. Most of the adjustment going back to levy payers would be to P&G.
- GM noted COVID-19 impacts on industry would continue into 2020-21.
- The committee discussed coal mining industry reception to levy invoices. B1 noted SP presenting to industry via QRC was helpful. GGS noted OGIA bringing P&G and coal mining together in a joint IRG would help.

  Action: HM to ascertain which companies' levy invoices are paid.

Outcome

- The EAC noted the agenda paper with no issues raised.

AGENDA ITEM 4 – PLANNED EXPENDITURE FOR 2020-21

- SP explained how OGIA allocates budget across activities and levy classes, with review and adjustment after EOFY.
- B1 noted the increasing volume of requests for data and advice. SP suggested OGIA could share, at the next meeting, the costs associated with providing advice.
- GGS sought the Committee's agreement to endorse the budget, noting DNRME Finance may make minor changes to Corporate Costs and ICT.

Outcome

- The EAC noted the clarifications as above and endorsed the planned expenditure.

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OTHER BUSINESS

- B1 noted EAC meeting papers often contain new/detailed information and requested to receive them further in advance of EAC meetings.

  Action: HM to distribute next meeting's papers with more notice.

NEXT EAC MEETING

Action: HM to schedule the next EAC meeting in November-December 2020 with reasonable notice.

CLOSE

- The Chair closed the meeting at 1.47 pm.

RECOMMENDATION

That the EAC endorse the minutes of this meeting.

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AGENDA ITEM 2 – UPDATE ON OGIA'S ACTIVITIES

PURPOSE

To provide an update on the Office of Groundwater Impact Assessment's (OGIA) activities since May.

BACKGROUND

The Surat cumulative management area (CMA) was formally amended through a gazette notice on 31 January 2020. OGIA received a notice from the Department of Environment and Science (DES) to amend the Surat UWIR for coal mining impacts by 1 December 2021.

Since the last meeting in May 2020, the primary focus of OGIA has been on scientific assessment and engagement. This paper provides an overview of those activities.

UPDATES

Appointment of EAC members

- On 4 March 2021, OGIA's ED appointed two new members to the committee – Ms Georgy Mayo to represent petroleum and gas sector, and Mr Nick Cook to represent coal tenure holders in the Surat Basin. Mr Andrew Barger, who represents the wider resources sector, was also reappointed.
- These appointments are for three-year terms, until 3 March 2024.

2020-21 levy budget and invoicing

- The Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy approved the OGIA 2020-21 budget of $4,842k (including contingency of $250k) in July 2020.
- Invoices were sent to relevant tenure holders in September 2020.

Annual Report and update to EV Assessment

- On 16 December 2021, OGIA submitted an Annual Report, which is a statutory requirement; and an updated Environmental Values (EVA) Assessment, which was required as part of UWIR approval conditions.
- The Annual Report (Attachment 1) is not an update of the Underground Water Impact Report (UWIR) 2019. Instead, it is a very brief report providing commentary about:
    - the changes that have occurred since the last UWIR was released in 2019;
    - how those changes could affect groundwater impact predictions; and
    - an update on the implementation of the UWIR 2019.
- Some highlights from the report are as below:
    - Since the UWIR 2019, the planned coal seam gas (CSG) production area has expanded marginally by about 8% with some shifting of production to later years.
    - The number of existing CSG production wells has grown to about 8,000, while the total proposed wells are about 22,000.
    - Total associated water extraction from the Surat CMA has dropped marginally and is stabilising at around 55,000 ML/year.
    - The changes do not affect make good arrangements for water bores that

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were identified as Immediately Affected Area (IAA) bores.

- Implementation of monitoring and spring strategies is progressing well.
- The spring mitigation plan is maturing and firm actions are being agreed upon with the responsible tenure holder, Santos.
- OGIA's research program is progressing as planned for the next update of the UWIR in 2021, which will be the first UWIR for the Surat CMA to combine cumulative impact assessment of petroleum and gas and coal mining.

Modelling

- Local geological models have been built for the northern coal area and New Acland.
- Structural refinements have been made to the groundwater model, including:
  - Subdivision of the Walloon Coal Measures to reflect key stratigraphic units
  - Update and extension of the Horrane fault to incorporate new seismic data
  - Refinement of the Hutton-Wallumbilla fault to reflect recent findings from the analysis of Airborne Electromagnetic data acquired by Geoscience Australia
  - Refined representation of Alluvium in the central coal area.
- Additional improvements have been made to process representation, including:
  - Representation of coal mines
  - Representation of CSG wells completed in the Durabilla formation
  - Updated calibration datasets and methodology
- Model calibration is in an advanced stage and is expected to be completed within the coming weeks.
- A separate sub-regional model is being developed for the northern area
- A preliminary approach to next-generation modelling was developed and has commenced testing. It is an ambitious and revolutionary approach and, if successful, outputs would not be available to include in the UWIR 2021 due to the long lead time. Further work on this stream of work is paused due to competing priorities relating to preparation of the UWIR 2021.

Technical assessments and conceptualisation

- Conceptualisation work is progressing in three key areas:
  - to improve conceptualisation of impact pathways from CSG development in areas where key receptors are located, e.g. springs in the Dawson River catchment, Surat and Bowen basin contact zones, Moonie gasfield and Horrane fault;
  - to update analyses of monitoring data to identify CSG impacts using more advanced techniques, such as signal processing; and
  - to develop conceptualisation of groundwater impact pathways in and around the coal mines.
- Work relating to coal conceptualisation has been progressing, albeit at a slower pace than anticipated/planned. This is primarily due to the late receipt of data, greater than anticipated complexities in data received, and resourcing issues.
- A few of the field projects are still suspended or delayed due to the COVID-19 situation.

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- An electromagnetic survey for better understanding and mapping of geological faults in the eastern part of the Surat CMA is planned to commence in April/May 2021.

Ground movement and subsidence

- Following legislative amendments in late 2016, OGIA now has a statutory responsibility to assess subsidence impacts where they can potentially affect environmental values – such as irrigation land.
- In recent months, the issue of land subsidence has been raised by some landholders in and around the Kupunn area in the Condamine Alluvium – particularly in relation to monitoring of subsidence, its potential implication on land valuation, and mitigation measures.
- The subsidence issue is raised as part of a much broader issue about the coexistence of CSG development within the cropping land footprint and how it is managed through the regional planning process.
- The GasFields Commission Queensland (GFCQ) is liaising with landholders to coordinate a government-wide response.
- On matters relating to subsidence prediction and monitoring, in recent weeks, OGIA has been working with landholders and industry to develop a comprehensive framework for monitoring ground movement and interpreting subsidence.
- As part of the monitoring framework, OGIA is now working directly with landholders and industry towards testing ground-based survey methods in cultivation areas – an approach supported by landholders.
- OGIA is also developing a geomechanical model to assess the potential future subsidence caused by Coal seam gas development.

Engagements activities

- OGIA has been engaging heavily with DES on a range of issues, such as:
    - potential legislative improvements to Chapter 3 provision on matters relating to OGIA, and preparation and implementation of the UWIR.
    - seeking clarity on the UWIR and Environmental Authority interface (OGIA has commissioned Randall Cox for this specific purpose)
    - seeking clarity on:
        - what is a water supply bore for the purpose of Chapter 3
        - the process and mechanism when a water bore is identified as an IAA bore in the post-UWIR period due to a change in bore information
        - how to give effect to the Spring Impact Management Strategy
        - the scope of EV assessment in the UWIR
- OGIA has also been engaging extensively with the GFCQ with increasing cooperation in a range of areas, such as:
    - matters relating to subsidence, as the GFCQ is coordinating a whole-of-government response
    - dissemination of data and information
    - make good and regulatory matters.
- OGIA's ED attended a meeting of the GFCQ Stakeholder Advisory Group in March 2021, and two meetings of the GFCQ Surat Stakeholder Advisory Group in Dalby in November 2020 and February 2021.

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- OGIA organised two formal information sessions/workshops in Dalby, in November and February respectively, to seek data/information on consequences and monitoring of ground movement.
- Several informal engagements are occurring with many landholders on matters relating to impacts on water supply bores.
- A meeting with members of the Industry Reference Group is planned in early April 2021. This will be the first combined P&G and coal industry meeting.

UWIR implementation and data maintenance

- The bi-annual implementation report was sent to DES in December 2020. The report provides a summary of progress with the implementation of key strategies identified in the UWIR – water monitoring, spring monitoring and mitigation.
- A key area of work has been the technical review and application of Santos's spring impact management plan (SIMP) as required under the UWIR 2019. OGIA has played a key role in evolving the SIMP into an appropriate implementation framework with DES.
- The quantum of data received by OGIA continues to increase. To ensure data is managed appropriately, OGIA developed a data management strategy in 2020 and is advancing key components of the strategy – including storage and portals for data provision and receipt. It is expected that this will be operational in late 2021.
- OGIA has continued to develop a range of technical workflows to support the UWIR 2021. Many of these workflows have been streamlined into Python code, improving the repeatability and efficiency of applying these assessments.

Data provision and additional model runs

- Increasingly, more and more requests are being made of OGIA by industry and research organisations to provide data, information and additional model scenario runs for various regulatory approvals or research. This requires substantial resourcing to prepare agreements, data, model runs, reviews, quality checks and compilation.
- Some of the recent data/information provisions include the following:
    - Departmental – history of water use in the basins of the GAB; a geological cross-section; stratigraphic picks; and tenure holder monitoring data.
    - CSIRO – latest OGIA 3D geological model; a set of maps and underlying data showing water use for the key aquifers in CSIRO study area; and a breakdown of groundwater use in the area.
    - GA – well stratigraphic pics; mappable faults and fault intersections as interpreted by OGIA, subcrop extents for the Bandanna-Precipice contact and geological model outcrop.
    - APPEA – CSG drawdown grids (cell centre values) for timesteps equivalent to 1 January 2017, 2023 and 2029 across the whole of the CMA.
    - GFCQ – data for comparison figure from Annual Report 2020, data for existing and projected wells and data for groundwater take.
    - Arrow – model output for 450 uncertainty analysis; technical data files and ArcGIS shape files; Terrestrial Groundwater Dependent Ecosystems assessment data and files; and drawdown shape files for the Gubberamunda Sandstone, Springbok Sandstone, Walloon Coal Measures and Hutton Sandstone.

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- Central Petroleum – spatial grids.
- Origin – production scenario for EPBC referral v2; uncertainty analysis for Development Scenario EPBC referral v2; and review of draft water assessment report for the Gas Supply Security Project.
- QGC – lithostratigraphic surfaces for the 2019 UWIR, full series of surfaces for the Surat Basin stratigraphy, in a Petrel format.
- Senex – predicted heads at monitoring sites.
- Westside – provision of model scenario runs and review of draft document prior to document being submitted for publication through Westside's referral of PL94.
- various data requests from landholders regarding water bore impacts.

Advice

- Section 458 of the *Water Act 2000* provides that "the chief executive [of DES] may give [OGIA] a written direction requiring [OGIA] to advise the chief executive on any matter relating to impacts on underground water caused by the exercise of underground water rights."
- The following requests have been actioned since the last update:
  - Draft Information Request to be issued to Arrow Energy Pty Ltd in relation to an application for amendment to an Environmental Authority
  - Review of QGC Groundwater Dependant Ecosystems Management Plan (GDEMP) Report
  - Further technical groundwater assistance to inform the level of risk posed by Arrow Energy Pty Ltd amendment to an Environmental Authority

Publication, reports and conference presentations

- Since May 2020, OGIA has also finalised the following reports and made them publicly available on the OGIA website:
  - Hydrogeological characterisation of faults in the Surat Basin
  - Annual Report 2020 for the Surat Underground Water Impact Report 2019.

Recruitment and staffing

- Following various recruitment processes, OGIA secured a Project Officer (Michael Veen), Hydrogeologist (Alex Felci) and returning Chief Hydrologist (Linda Foster).
- s.73 Irrelevant information have moved on to the private sector.
- OGIA is in the process of hiring a hydrogeologist, a data scientist and a modeller.

RECOMMENDATION

That the EAC note the update on OGIA's core activities since the last meeting.

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AGENDA ITEM 3 – UPDATE ON 2020-21 FINANCIAL POSITION

PURPOSE

To provide an update on the levy, budget and expenditure position for 2020-21.

BACKGROUND

On 21 May 2020, the EAC endorsed OGIA's 2020-21 budget of $4,842k – comprising $3,821k for P&G, $771k for mining and $250k contingency.

The contingency is held separately from the budget and unused funds will be adjusted as credits in the levy for 2021-22.

UPDATES

Budget approval for 2020-21

- On 3 July 2020, the OGIA 2020-21 budget was approved by the Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy.

Levy for 2020-21

- On 24 September 2020, OGIA sent levy invoices for a total amount of $3,442k after an adjustment (credit) for $1,400k of unspent funds from the previous year's levy.
- Distribution of levy payers was as below:
    - 5 CSG tenure holders in the Surat CMA paying 79.4% of the total levy
    - 7 mining lease tenure holders in the Surat CMA paying 16.2% of the total levy
    - 12 conventional P&G tenure holders in the CMA paying 3.2% of the total levy
    - 7 P&G tenure holders and 26 mining tenure holders outside the CMA paying 1.2% of the total levy.
- 2020-21 levy payments are overdue from five levy payers, totalling $17k. Corporate finance is following up and full payment is expected.
- The 2017-18, 2018-19, 2019-20 and 2020-21 levy payments from Brisbane Petroleum are outstanding. Brisbane Petroleum has a history of non-payment. Debt recovery is being outsourced by corporate finance and 90–95% payment is expected.

Overall financial outlook

- The financial position as of 28 February 2021 is summarised in Table 1.
- OGIA's end-of-financial-year (EOFY) forecast expenditure is currently under budget by about 3.7%.

Table 1 Financial position for 2020-21 as at 28 February 2021 ($,000)

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Employees	*2,029*	*1,353*	*1247*	*1,835*	*(194)*
Agency staff	*860*	*573*	*500*	*869*	*9*
Personnel subtotal	2,889	1,926	1,747	2,704	(185)
Corporate costs	512	341	341	512	-
Supplies and services	313	209	233	304	(9)

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	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Contractors and consultancies	878	585	328	902	24
Total	**4,592**	**3,061**	**2,649**	**4,422**	**(170)**
Contingency	250	167	0	0	(250)

Sums may differ due to rounding.

Personnel costs

- The OGIA core team consists of staff through two separate arrangements: (1) employees and (2) staffing agencies providing long-term staff classified as contractors. Personnel from both arrangements are housed together at 1WS as a single team under a single structure. Therefore, reporting of budget and expenditure is realigned by splitting agency staff budget from contractor and reconciling with personnel as a separate line item.
- This arrangement provides greater flexibility for hiring and managing staff members with technical expertise.
- Over time, more work has been undertaken internally and this trend is continuing.
- A number of positions are filled through the contracting arrangements to provide greater flexibility.

Corporate costs

- Corporate costs include the internal service charge, which includes accommodation at 1WS (including 1WS ICT infrastructure charges), invoicing, payroll, web and communications, finance, human resources and in-house legal services.
- The rate for corporate costs is fixed and in expected to be in line with the budget.

Supplies and services

- A breakdown of the supplies and services budget is provided in Table 2.
- Supplies and services include costs for items such as materials, analytical services, recruitment and advertising services, telephone and computing equipment, printing, travel and other.
- The overall EOFY position for supplies and services is forecast to be $304k, which is broadly in line with the budget.

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Table 2 Supplies and services costs as at 28 February 2021 ($)

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Accommodation costs	6,500	4,333	5,044	7,500	1,000
Advertising and promotion	1,000	667	-	-	(1,000)
Information technology	187,000	124,667	119,389	187,000	-
Software licensing	59,450	39,633	24,905	59,450	-
Legal fees	-	-	-	-	-
Materials and consumables	1,000	667	517	1,000	-
Minor plant and equipment	-	-	-	-	-

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Motor vehicles	5,000	3333	2,680	6,000	1,000
Printing and postage	5,000	3333	1,142	3,200	(1,800)
Testing and analytical	1,000	667	-	-	(1,000)
Training and recruitment	11,000	7,333	2,834	4,000	(7,000)
Travel	7,000	4,667	5,729	7,000	-
Other expenses	29,050	19,367	70,752	29,050	-
Total	**313,000**	**208,667**	**232,992**	**304,200**	**(8,800)**

Sums may differ due to rounding.

- $51k YTD overspend in Other is due to unpaid levy invoices, expected to be zeroed as levy invoice payments are received.
- $19k YTD underspend in I.T. and Software is expected to balance out with budget at EOFY.

Contractors and consultancies

- Table 3 provides a breakdown of the contractors and consultancies line item from Table 1. Further details are provided below the table.

Table 3 Contractors and consultancies costs as at 28 February 2021 ($,000)

	EOFY budget	Year to date		EOFY forecast	
		Budget	Actual	Estimate	Variance
Regional groundwater modelling	330	220	167	321	(9)
Hydrogeological assessments	288	192	102	371	83
Environmental value assessment and spring research	110	73	-	9	(101)
Data management and business support	150	100	59	201	51
Total	**878**	**585**	**328**	**902**	**24**

Sums may differ due to rounding.

- Increasingly, the work is undertaken by OGIA within its own team as employees or through hiring agency contractors. The arrangement provides OGIA flexibility to accommodate the varying complexity and scope of technical work.
- Outsourcing of work as contracting and consultancy services is used to supplement OGIA's core expertise.
- EOFY expenditure is expected to be $902k, which is $24k over budget.

RECOMMENDATION

That the EAC note the paper.

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AGENDA ITEM 4 – CLOSING FINANCIAL POSITION FOR 2019-20

PURPOSE

To provide a summary of the closing financial position for 2019-20.

BACKGROUND

In accordance with the provisions of the *Water Act 2000*, the activities of the Office of Groundwater Impact Assessment (OGIA) are funded by a statutory levy on resource tenure holders.

The Water Regulation 2016 establishes the structure of the levy. The levy apportions costs between tenure holders, or classes of holders, based on the cost of OGIA carrying out functions specific to the holders or class of holders.

An annual levy amount is determined based on the OGIA budget approved by the Minister and the tenures held on 1 July of the year. The invoice includes a credit for unspent funds from the previous year.

OGIA's budget of $4,376k for 2019-20 (including $225k contingency) was approved by the Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy.

After the Surat cumulative management area (CMA) was amended to include coal mining in the Surat and lower Clarence-Moreton basins, the Minister approved an additional budget of $463k (including $24k contingency) for OGIA's coal mining-related activities for the rest of the 2019-20 financial year. This gave OGIA a total working budget of $4,591k plus $249k contingency.

UPDATES

Final expenditure for 2019-20

- At the May 2020 meeting, the EAC noted that OGIA's 2019-20 end of financial year expenditure was forecast to be 28% under the budget.
- In August 2020, OGIA's accounts were finalised, confirming final expenditure for 2019-20 as $3,434k – 25% under budget.
- The 2019-20 expenditure is summarised in Table 1. Variances are summarised in subsequent sections.

Table 1 Financial position for 2019-20

Cost item	2019-20 Budget (,000)	2019-20 Actual (,000)	2019-20 Variance (,000)
Employees	*$2,587*	*$1,763*	*($824)*
Agency staff	*$259*	*$213*	*($46)*
Personnel	$2,846	$1,976	($870)
Consultancies and contractors	$723	$522	($201)
Corporate costs	$567	$512	($55)
Supplies and services	$455	$424	($31)
Total (excl. contingency)	**$4,591**	**$3,434**	**($1,157)**
Contingency provision	$249	$0	($249)

Sums may differ due to rounding.

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Personnel

- Personnel expenditure was 31% under budget primarily due to the timings of both the CMA amendment and the mining budget approval, as well as ongoing vacancies.

Corporate costs

- Corporate costs were underspent by $55k due to the timing of the mining budget approval.

Supplies and services

- Supplies and services costs were 7% under budget, primarily due to the timing of the mining budget approval and the COVID-19 situation.

Contractors and consultancies

- At the May 2020 meeting, the EAC noted that the contractors and consultancies expenditure was forecast to be 61% under budget.
- In August 2020, OGIA's accounts were finalised, confirming final expenditure for contractors and consultancies at 28% under budget.
- The change in variance is primarily due to a contract signed in June for the continuation of a UQ project measuring groundwater use in the Surat Basin.

RECOMMENDATION

That the EAC note this paper.

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Department of Natural Resources, Mines and Energy

Office of Groundwater Impact Assessment

Expenditure Advisory Committee

OGIA activity update

Thursday 21 May 2020

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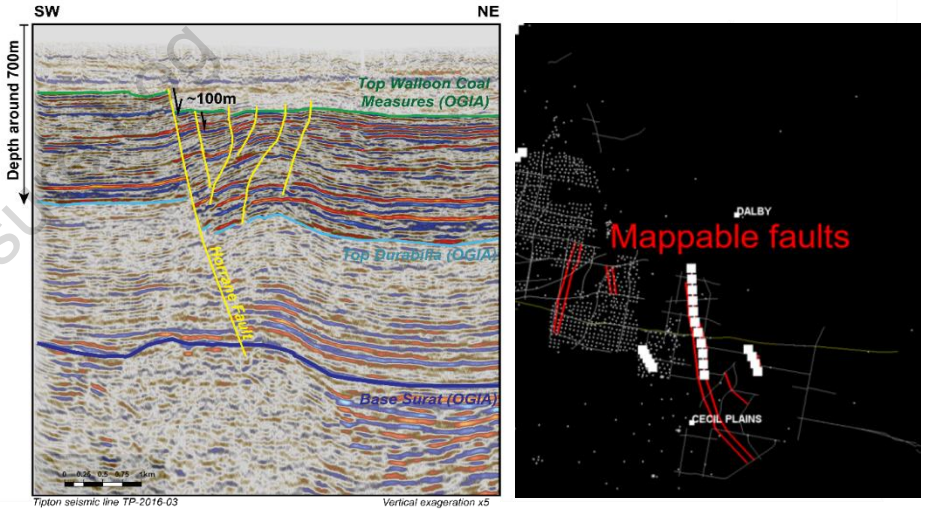
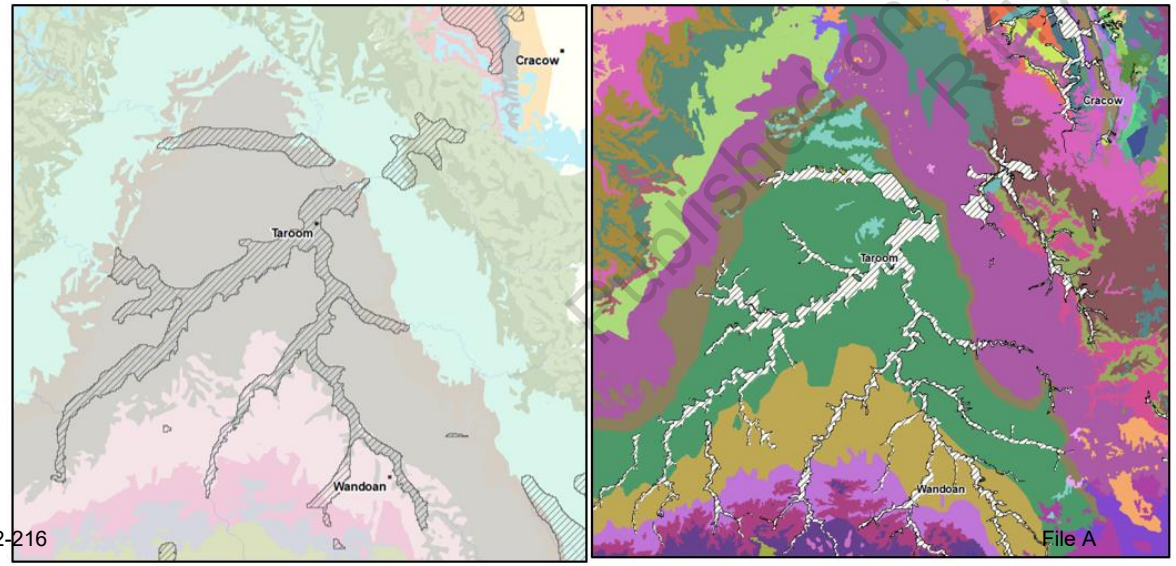
Queensland Government

Geo-model improvements (UWIR 2021)

- Improve Cenozoic cover (GSQ 1:100k mapping)
- Update fault framework
- Include ~1,000 new CSG wells
- Refine geology around coal areas
  - Main Range Volcanics
  - Walloon Coal Measures
  - Springbok Sandstone





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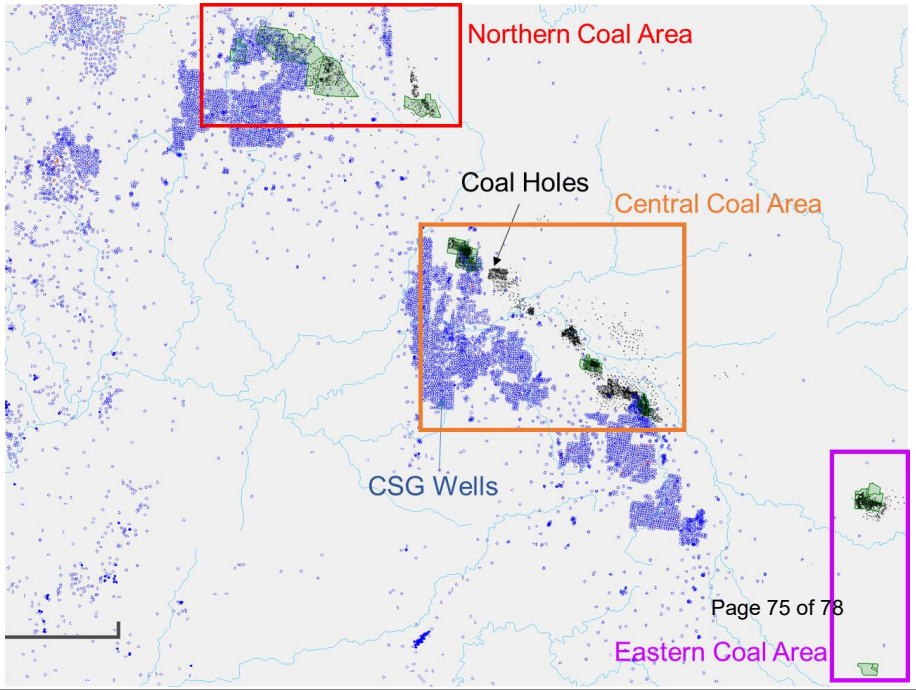

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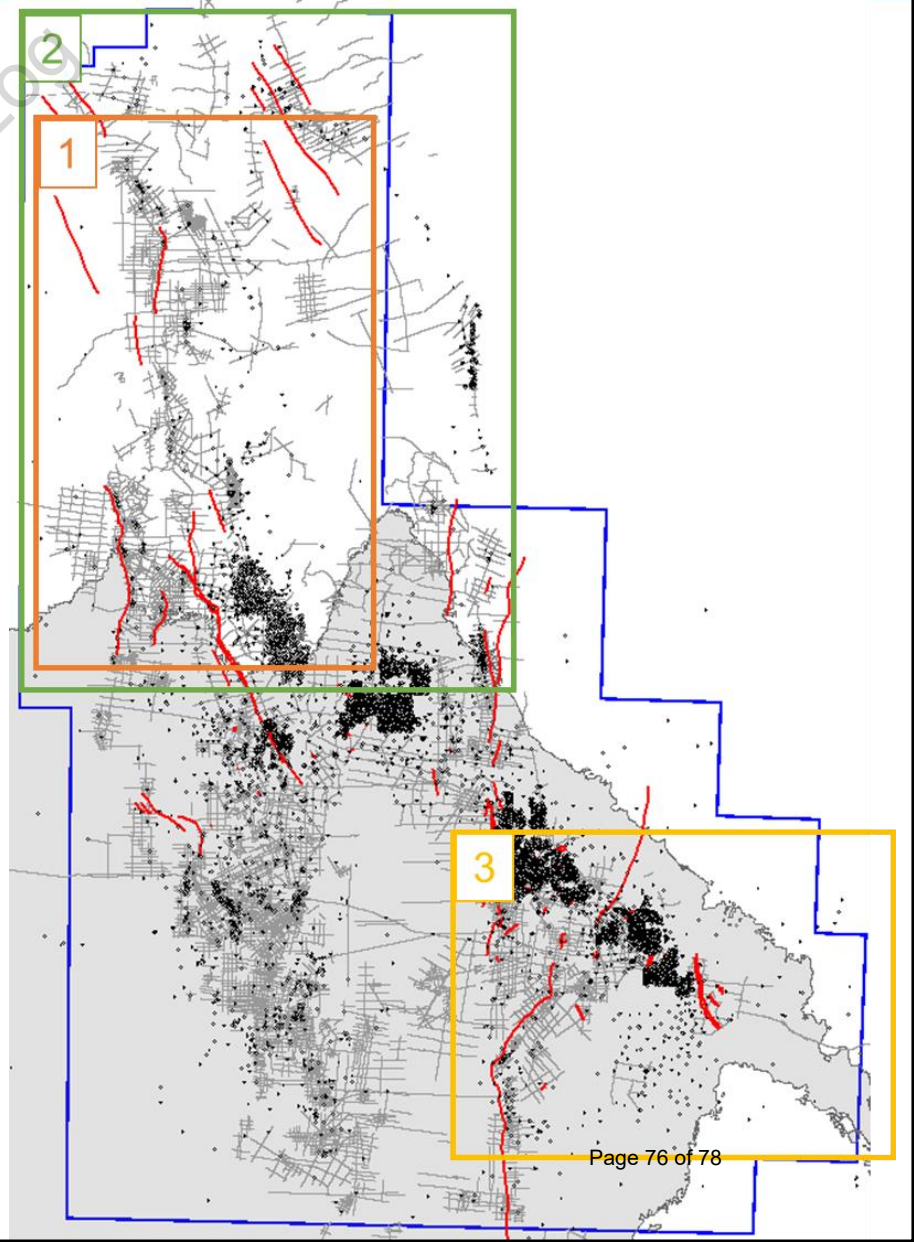
Geo-model improvements (2021 & beyond)

- Thousands of seismic lines (2D & 3D)
- Extensive coverage
- Deep depth of investigation

- Potential improvements:
  1. **Low-confidence areas**
  2. **Formation extents**
  3. **Around regional faults**

Outcomes:

- Higher confidence aquifer attribution
- Updated conceptualisation (faults, geology, etc.)
- Improved impact predictions



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Groundwater model update (UWIR 2021)

- Inclusion of selected geo-model improvements (Faults, Cenozoic etc.)
- Representation of horizontal wells (Bowen Basin)
- Updated calibration and uncertainty analysis
  - Pressure
  - Water use
  - CSG production
  - Reinjection
- New development scenario

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The End

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