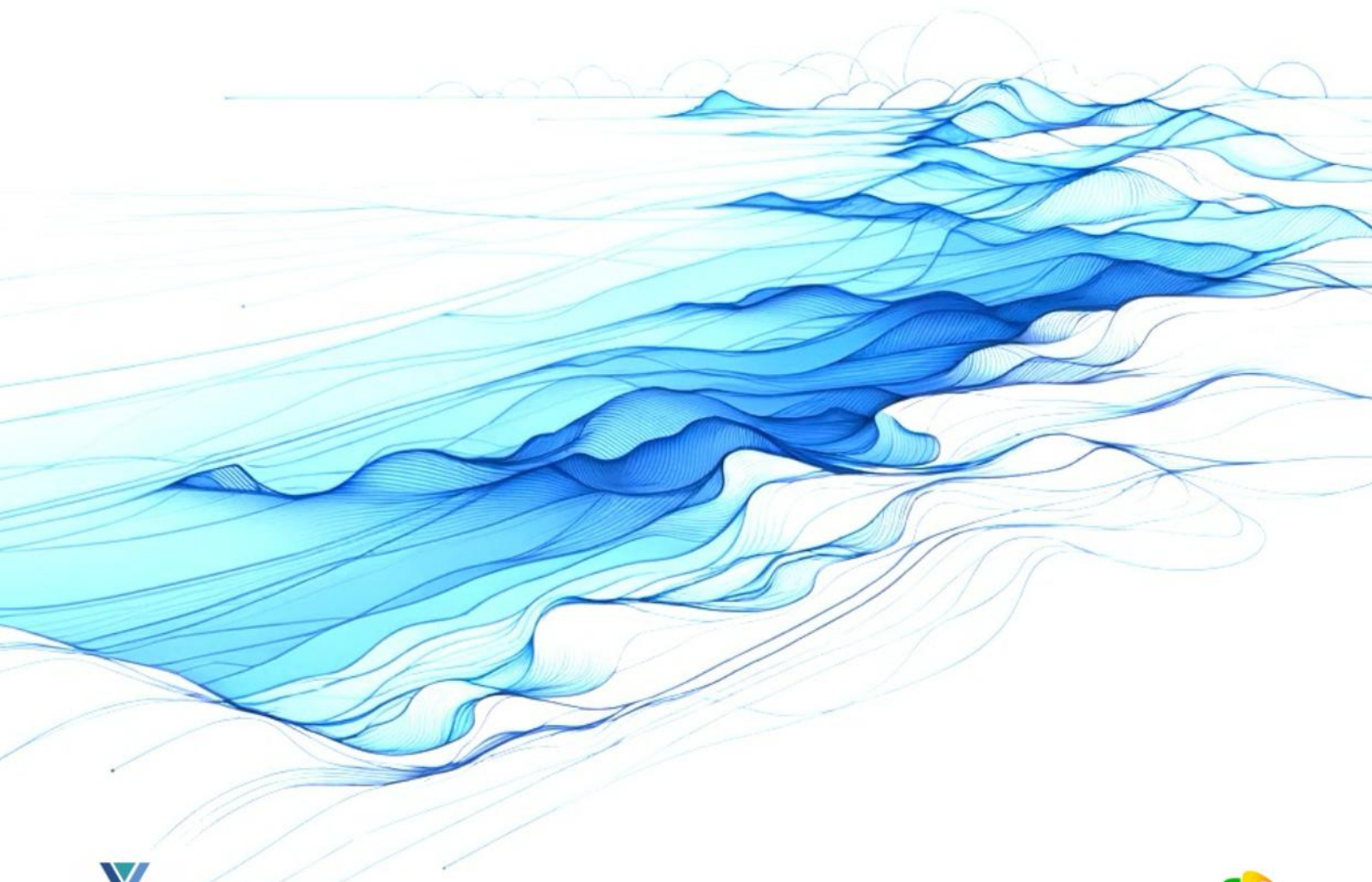
REGIA
Marine Seismic Survey

Environmental Performance Tables

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Klarite

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1 Environmental Performance Tables

1.1 Management of the Activity (All Aspects)

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
The activity will have constraints and limitations in place such that all environmental aspects are not created for more than 90 days.	Operational logs and activity reports confirm that all activities were completed within a 90-day period, with records verifying that the activity was conducted within the activity limitations. Audits and inspections conducted throughout the activity show measures in place to manage impacts and risks performed as expected and deviations were corrected within procedural timeframes.
The activity is managed to ensure environmental impacts and risks remain within temporary, reversible, small-scale, and low-intensity impacts.	
The effectiveness of impact and risk management measures is continuously monitored and adapted as necessary to maintain compliance with the implementation strategy.	
The activity is conducted in a way that prevents unmitigated financial loss to affected persons and ensures social and cultural values are protected.	
The community and relevant persons are informed about the operational details of the activity and relevant persons objections and claims are promptly assessed.	Consultation records confirm that operational details were shared with the community and relevant persons, with documented assessments and responses for any objections and claims received within specified timeframes.
Social, cultural, and economic features are protected, sustaining their value for people and communities.	Behavioural observation reports, audits, verified incident reports, monitoring records and independent evaluations confirm no disruption to critical life-cycle behaviours of identified species, supported by documented mitigation measures. Compensation for verified income losses, such as reduced catch volume or displacement, is validated via claims assessments, economic desktop study, fish stock data, and spatial access mapping.
The activity is conducted such that environmental impacts and risks remain within the range assessed as medium or lower, with mitigation measures in place and functioning as intended.	All mitigation measures identified are implemented and function as intended, with no incidents indicating that residual impact exceeds the “medium” level assessed in the risk register.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
CGG Technical Operations Manager	Maintains oversight of the activity and implementation of EPOs and EPSs within the EP through daily reports.	Operational logs, daily HSE checklists, and meeting records confirm that the CGG Technical Operations Manager maintained oversight of vessel performance per the Sail Line Plan, conducted daily HSE checks, and attended daily operational meetings and toolbox talks,
	Ensure that seismic acquisition practices during the survey reflect the planning and alignment outcomes of the ‘Acquire	

Control Measures	Environmental Performance Standards	Measurement Criteria
	Seismic on Paper' exercise, including any corrective actions identified during the simulation.	with environmental matters documented and tracked for compliance.
	Verifies that the project vessels are performing as per the agreed contract and executing the seismic in accordance with the agreed (and varied) Sail Line Plan.	
	Continually monitor vessel HSE performance to ensure that the EP commitments are implemented.	
Quality Control and Reporting Representative	Ensure contracted vessels operate within the Sail Line Plan boundaries and sequences throughout acquisition.	GPS tracking data and activity logs confirm vessel movements complied with Sail Line Plan boundaries and sequences, with deviations identified, justified, and rectified in accordance with the operational procedure.
Environment Officer	Environmental incidents are documented, assessed, and responded to within required timeframes, with corrective actions implemented to prevent recurrence and minimise environmental harm in accordance with the Implementation Strategy.	Incident logs confirm all environmental incidents were recorded within 24 hours, with associated assessment outcomes and records of corrective actions implemented to minimise or prevent environmental harm.
	Continually monitor daily reports, weekly audit results, and incident reports, for ongoing compliance of the activity with the environmental performance outcomes and standards in this document.	
	Immediately initiate an inspection and/or corrective action upon identification of a non-compliance with any environmental performance outcome or standard.	
	Assessment of merit of an objection or claim is completed within 48 hours and any environmental protection requirements are implemented as soon as practical.	
Consultation Management System	Ensure relevant persons are provided with timely, accessible information that enables meaningful consideration of the activity	Communication logs, email records, and copies of notifications sent.
	All relevant person-related information, engagement plans, consultation activities, and complaints/feedback are accurately and completely documented and recorded.	Audit reports demonstrating the completeness and accuracy of documentation and records.
	Maintain comprehensive and up-to-date documentation of all processes, procedures, and records.	An audit shows compliance with documentation requirements and timely updates.

Control Measures	Environmental Performance Standards	Measurement Criteria
Environment Management System	Ensure all employees receive an activity specific induction on the environmental performance required for the activity and their environmental responsibilities.	Training records indicating that of employees and contractors have completed required induction.
	Establish clear communication channels for reporting environmental performance and incidents.	Daily and monthly reports demonstrate timely and accurate dissemination of information.
	Emergency response procedures are tested and shown to be capable of containing and mitigating potential environmental impacts in accordance with OPEP/OSMP requirements.	Pre-survey deployment exercises confirm that response resources can be deployed within response timeframes specified in the OPEP, with records showing containment of a simulated release scenario within acceptable limits.
	Conduct weekly audits to assess the effectiveness of the environmental performance outcomes and standards, the activity limitations, the implementation strategy and identify areas for improvement.	Audit reports showing completion of scheduled audits and implementation of corrective actions.
	Perform annual management reviews to evaluate the environmental performance outcomes and standards and make necessary improvements.	Meeting minutes and action plans from management reviews demonstrating continuous improvement.
	Ensure that suppliers and contractors comply with the organization's HSE requirements.	Supplier audits and compliance reports showing adherence to EMS standards.
Sound Source Verification Buoy Location Procedure	Anchored sound source verification buoys will only be deployed in locations where no mapped features of ecological significance (e.g. sensitive benthic habitats or protected seabed features) are present, as determined by available spatial data prior to deployment.	A record of spatial screening (e.g. GIS layer overlay or pre-deployment checklist) is maintained and available for audit.
	All components of the SSV buoys, including anchors, clump weights, chains, and associated equipment, will be fully recovered following deployment. No equipment will be intentionally left on the seabed.	Deployment and recovery logs document the quantity and type of equipment retrieved.

1.2 Accidental Release of Materials or Waste Overboard

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
No loss of materials or wastes overboard.	Operational logs, waste management records, and environmental audits confirm secure containment of all materials and wastes, with no recorded incidents or observations of overboard loss throughout the activity.
No death or injury to fauna, including listed threatened or migratory species, from the activity.	Verified incident reports, monitoring records, and environmental audits confirm zero observed or reported instances of fauna injury or mortality directly linked to the activity, with specific attention to listed threatened or migratory species.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
Streamer Recovery Units	The streamers will have recovery units fitted to prevent benthic disturbance in the event of loss.	Inspection and equipment logs confirm that recovery units are securely fitted to all streamers, with documentation showing pre-deployment checks and maintenance records for functionality.
	Streamer tail buoys will be of a design that does not represent an entrapment risk to turtles or turtle guards will be used.	Design specifications and inspection records verify that tail buoys are either designed to avoid turtle entrapment or fitted with turtle guards, confirmed through pre-deployment inspections.
Consultation Management System	If a loss of equipment poses a risk to other marine users, they will be notified via VHF Channel 16 and the event will be reported to AMSA, within 2 hrs.	Communication logs and incident reports verify that VHF Channel 16 was used to notify marine users of equipment loss, with timestamped records of notification to AMSA within the specified 2-hour window.
Garbage Management System	All containers for waste that has the potential to be blown overboard will have covers.	Inspection records confirm that all waste containers are equipped with secure covers to prevent overboard loss, documented in pre-survey audits and verified by ongoing inspections.
	All waste gathered during the survey is transferred to shore for disposal and this is recorded in the Garbage Management Book.	Waste transfer records and entries in the Garbage Management Book confirm that all collected waste was disposed of onshore, with records detailing each transfer and disposal event.
Support Vessel	When safe, assist in the recovery of lost equipment or unintentional garbage discharges.	Support vessel logs and incident response records document all recovery actions for lost equipment or garbage, with details of timing, location, and conditions confirming safe recovery practices.

1.3 Collisions with Marine Fauna

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
No death or injury to fauna, including listed threatened or migratory species, from the activity.	Verified incident reports, monitoring records, and environmental audits confirm zero observed or reported instances of fauna injury or mortality directly linked to the activity, with specific attention to listed threatened or migratory species.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
Turtle Guards	Tail buoys designed so they do not represent an entrapment risk to turtles or turtle guards will be used.	Design specifications and inspection records confirm that tail buoys meet entrapment risk mitigation standards or are fitted with turtle guards, with photographic verification from pre-deployment checks to ensure compliance.
Marine Fauna Observers	Two MFO's will always be resident on the survey vessel and will maintain a watch during daylight hours.	POB logs and daily records confirm that two MFOs were continuously present on both the survey and spotter vessels during daylight hours, maintaining active watch and providing immediate notifications of any fauna observations to the Survey Environment Advisor and Officer of the Watch, as required by monitoring protocols.
	Two MFO's will always be resident on the spotter vessel and will maintain a watch during daylight hours (except during port calls, crew transfers, and bunkering activities).	
	Provide immediate notification of an observation to the Survey Environment Advisor and the Officer of the Watch.	
Operational Procedure	All vessels as part of the Regia MSS will comply with of EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with Cetaceans to reduce the risk of collision with marine fauna during the activity.	MFO records will confirm that vessels adhered to EPBC Regulations (Part 8)

1.4 Introduction of Marine Pest Species

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
No introduction of a known or potential invasive marine species.	Ballast water management records, biofouling inspection logs, and environmental audits confirm adherence to marine pest prevention protocols, with no observed introduction or establishment of invasive marine species in the area, validated through post-activity desktop assessments.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
IMS Risk Assessment Procedure	Vessels/immersible equipment must be assessed as 'low risk' prior to mobilisation to the operational area by a qualified IMS inspector.	Inspection records confirm that all vessels and immersible equipment received a 'low risk' rating from a qualified IMS inspector before mobilization, with assessments documented and verified by audit reports.
	If any project vessels, including the seismic vessel and spill response vessels, have an overseas 'last port of call,' a Pre-Arrival Report must confirm that the vessel meets ballast and quarantine requirements.	Pre-Arrival Reports document compliance with ballast and quarantine standards for vessels arriving from overseas ports, with supporting inspection records confirming adherence to invasive species protocols.
Anti-Fouling System	The vessel's fuel consumption should not be increasing overtime more than 5% above the baseline established after last hull inspection.	Fuel consumption logs confirm that usage remains within 5% of baseline levels set post-inspection, with any increases promptly reviewed to ensure anti-fouling system efficacy.
	The interval between hull cleanings should be at least twelve months, as recorded in the maintenance logs. Any deviation from this schedule will be investigated to assess the anti-fouling system's performance.	Maintenance logs verify that hull cleaning occurs on a minimum 12-month schedule, with documented investigations into any deviations, including assessment of the anti-fouling system's condition.

1.5 Accidental Release of Fuel

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
No accidental release of fuel to the marine environment.	Incident logs and environmental audits confirm no recorded fuel releases into the marine environment during the activity, with secure fuel management practices documented throughout operations.
Maintain arrangements to respond to an unplanned release of fuel in accordance with the OPEP.	Response resources, mobilisation logs, exercise records, personnel competencies, and incident reports demonstrate that spill response arrangements remained in place and were capable of being activated and executed in accordance with the OPEP for the duration of the activity.
Maintain arrangements to monitor the effects of a release of fuel to the marine environment in accordance with the OSMP.	Monitoring equipment, deployment logs, sampling results, and reporting records demonstrate that environmental monitoring arrangements were maintained and capable of being implemented in accordance with the OSMP for the duration of the activity.
Respond to and clean-up any accidental release of fuel until termination criteria are met.	Clean-up efforts continue until no visible surface sheen remains, hydrocarbon concentrations in water and sediment meet regulatory thresholds, and an incident report confirming termination criteria are met is submitted.
Monitor any accidental release of fuel until termination criteria are met.	Monitoring continues until no visible surface sheen remains, hydrocarbon concentrations in water meet defined thresholds, and an incident report confirming termination criteria are met is submitted.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
Consultation Management System	Pre-start notifications and ongoing communications will be made over Channel 16 to ensure collision avoidance.	Communication logs and radio transmission records on Channel 16 confirm that pre-start notifications and ongoing updates were consistently broadcast at designated intervals, with records demonstrating alignment with collision avoidance protocols as outlined in the Consultation Management System.
CGG Marine Assurance System	Ensures vessels have a documented Preventative Maintenance System (PMS) that provides a status on the maintenance of equipment as per the manufacturer's specification for maintenance procedures for navigation equipment.	Maintenance records and PMS documentation confirm that navigation and bunkering equipment have been maintained per manufacturer specifications, verified by periodic audits and pre-survey inspections.

Control Measures	Environmental Performance Standards	Measurement Criteria
	Pre-survey inspection confirms: Navigation and bunkering equipment maintenance is up to date. Each vessel has an up-to-date SOPEP in place. Vessel materials or equipment that have the potential for spill overboard are within contained/bunded areas. Vessel contractor has an HSE management plan, and that plan will be approved by CGG prior to survey commencement.	Inspection and audit reports confirm that all vessels pass pre-survey checks, including current SOPEP documentation, maintenance status, bunding of spill-prone equipment, and CGG-approved HSE management plans.
Vessel Bunkering Procedure	Pre-bunkering inspection confirms: Dry break couplings and bunkering hoses are in serviceable condition and certified for use. Tank inventories are taken prior to, during, and after transfer.	Inspection logs confirm dry break couplings and bunkering hoses are certified and operational; inventory records document volumes before, during, and after bunkering to verify containment integrity.
	No one fuel tank inventory will exceed 250 m^3.	
	Only commence bunkering operations in sea states less than 5m and wind speeds less than 35 knots.	Bunkering operation logs, including sea state and wind speed data, confirm adherence to environmental limits, with operations conducted only within safe parameters.
Support Vessel	Support vessel to communicate future vessel movements with other marine users.	Communication logs show documented notifications of vessel movements to nearby marine users, with confirmation of receipt where applicable to facilitate collision avoidance.
	Support vessels will accompany the seismic vessel during surveying operations to patrol and maintain a clear zone ahead of the vessel.	Patrol records and vessel positioning data confirm that support vessels maintained a clear zone ahead of the seismic vessel throughout surveying, as documented in patrol logs and GPS tracking.
CGG Technical Operations Manager	CGG will notify any incidents in accordance with the procedures in the OPEP and OSMP.	Incident logs and notification records confirm that all incidents were reported per OPEP and OSMP protocols, with time-stamped evidence of compliance.
	CGG will execute a comprehensive monitoring and evaluation strategy aimed at assessing the environmental fate and ecological consequences of any potential spill incident in strict accordance with the OPEP and OSMP.	Monitoring reports and evaluation summaries document environmental fate assessments and ecological impact analysis for any spill incident, consistent with OPEP and OSMP strategies.

Control Measures	Environmental Performance Standards	Measurement Criteria
	CGG will establish an oiled wildlife response strategy in collaboration with the relevant State government to safeguard listed and migratory species in the event of an oil spill, ensuring prompt and effective protection measures are in place.	Response planning documents and collaborative agreements with State authorities confirm a standby oiled wildlife response strategy, with records of readiness measures and personnel training to protect listed and migratory species effectively.

1.6 Planned Discharges and Atmospheric Emissions

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
Planned discharges and atmospheric emissions comply with maritime law.	Discharge and emissions logs, along with compliance audits, confirm that all planned discharges and atmospheric emissions meet maritime law standards, with documented evidence of adherence to permitted levels and discharge protocols.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
CGG Marine Assurance System	Pre-survey audits of the contracted vessels show compliance with MARPOL, COLREGS, and Marine Orders 21, 30, 31, 59, 70, 71, 72, 91, 95, 96,97, and 98.	Pre-survey audit reports confirm that all contracted vessels comply with MARPOL, COLREGS, and specified Marine Orders, with documented evidence of inspections and compliance for each standard.
	Ensure that bilge discharges from all vessels remain below 15 ppm during all discharge events.	Oil content meters and discharge logs confirm bilge water discharges did not exceed 15 ppm, with real-time alarms triggered and reviewed for any anomalies, as recorded in the Oil Record Book.

1.7 Physical Presence

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
The activity is scheduled and located to avoid exclusion of commercial fishing from known, high-effort fishing areas for more than 90 consecutive days, with no resulting adverse effects on fish stock status.	Documented evidence of compliance with marine traffic management protocols, including the absence of reported or observed incidents of collision with other marine users, verified through regular logbook entries, GPS tracking records, and radar monitoring data.
As a result of the activity limitations and the adoption of the Otway Adjustment Protocol, no commercial marine user will be worse off because of the activity.	Reasonable claims assessments confirm compensation has been paid for any evidence-based decline in income (e.g. catch volume or displacement) attributable to the activity, validated through pre- and post-activity economic desktop study, fish stock data, and spatial access mapping.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
Consultation Management System (CMS)	Marine users are informed in a timely manner such that conflicts or incidents with the survey vessels are avoided, as verified by absence of marine user complaints or navigation incidents.	Communication logs confirm that marine users were identified and informed in compliance with maritime law, with documentation showing consistent outreach to stakeholders.
	The forward plan for the survey is communicated to fishers through the agreed on-water communications plan.	Notification records verify that the survey plan was communicated to fishers as per the agreed communications plan, with evidence of timing and content of messages shown in full text copies of the correspondence.
	The status of the claims process and how to make a claim for compensation are clearly communicated to all commercial fishers in the region before the survey starts.	Documentation of notifications, emails, and/or meetings confirms that all commercial fishers were informed of the claims process and compensation procedures prior to the survey.
Otway Adjustment Protocol (OAP)	Appropriately documented claims will be assessed, in accordance with the processes outlined in the OAP, and completed within 30 days of receipt of the required data.	Documentation of notifications, emails, and/ claims confirm that all commercial fishers commercially worse off because of the survey have made claims. Confidentiality agreements and payment receipts were appropriate.
	A claim can be lodged up to 180 days after the completion of the activity.	
	Adjustment can be claimed for up to 30 days after the completion of each activity.	

Control Measures	Environmental Performance Standards	Measurement Criteria
	Successful claims will receive compensation within 30 days of the Outcome Notification being executed.	
Streamer tail buoys	Each streamer will be fitted with a tail buoy to mark the end of the streamers so that they can be detected by other vessels.	Pre-deployment photographs confirm that tail buoys were fitted to all streamers prior to deployment, with audit records verifying visibility compliance.
Quality Control and Reporting Representative	Always monitor the location and planned activities of the contracted vessels in accordance with the Sail Line Plan.	GPS tracking data and activity logs confirm continuous monitoring of vessel locations and adherence to the Sail Line Plan, with records documenting compliance.
CGG Technical Operations Manager	Reasonable, evidence-based claims are promptly assessed and paid in accordance with the Otway Adjustment Protocol.	Claims assessment records show that compensation claims were reviewed and paid promptly, with supporting evidence based on the Otway Adjustment Protocol.
Fisheries Liaison Officer (FLO)	Individual located in the region to be able to meet fishers in person to discuss the operational outlook and support fishers with claims under the Otway Adjustment Protocol.	Meeting logs and consultation records verify that the FLO was present in the region, with documented interactions with fishers to discuss the survey outlook and claims process.
CGG Marine Assurance System	Navigation and communication equipment is part of the maintenance system and is functioning continually throughout the survey.	Maintenance records and inspection logs confirm that navigation and communication equipment was operational and maintained throughout the survey, with downtime incidents documented.
Support Vessel	Throughout the seismic survey, at least one support vessel will be in constant attendance to communicate with other marine users.	Support vessel logs confirm continuous presence and communication with marine users during the seismic survey, with documented records of interactions.

1.8 Underwater Sound

Environmental Performance		
Receptor	**Environmental Performance Outcomes**	**Measurement Criteria**
Plankton, Zooplankton and Krill	**As a result of complying with the sound source volume and activity limitations, sound emissions will not disrupt the ecological integrity of plankton communities.**	Operational logs and sound source tracking data confirm continuous movement during full-power operation, validated by GPS coordinates and real-time monitoring records showing no stationary positioning.
	As a result of complying with the sound source volume and activity limitations, no impacts to plankton communities beyond 740 metres from the sound source.	
Fish & Invertebrates	No change in the assessed stock status of commercial and aquaculture species during and following the activity.	Analysis of VFA or AFMA annual Stock Assessment Reports indicating no statistically significant change in biomass within the area of activity, validated by pre- and post-activity comparisons of biomass data over multiple years to account for natural variability.
	Fish will not be exposed to cumulative sound levels exceeding 186 dB SEL $_{cum24hr}$ for more than 24 hrs.	Operational logs and sound source tracking data confirm continuous movement during full-power operation, validated by GPS coordinates and real-time monitoring records showing no stationary positioning.
Birds, Marine Mammals & Reptiles	No death or injury to fauna, including listed threatened or migratory species, from the activity.	Verified incident reports, monitoring records, and environmental audits confirm zero observed or reported instances of fauna injury or mortality directly linked to the activity, with specific attention to listed threatened or migratory species.
Cetaceans	As a result of shutting down or relocating the sound source when whales enter shutdown zones, no physical injury or sustained interference with marine mammal life-cycle behaviours occurs during the activity.	Verified observation logs, real-time visual and acoustic monitoring records, and incident reports confirm adherence to sound source shutdown protocols when cetaceans (including low-frequency cetaceans, BWs, and SRWs, including cow-calf pairs) are observed within specified distances and durations from the sound source, with documentation showing compliance for each proximity and residency condition.
	As a result of complying with the activity limitations and environmental performance standards in place to protect threatened whales, environmental impacts and risks associated with the activity are managed in a manner that is demonstrably consistent with ecologically sustainable development principles.	
	As a result of shutting down or relocating the sound source when a blue whale is observed within 5 km, blue whales will not be behaviourally disturbed within this range, leading to the protection of important foraging areas and avoidance of displacement.	

Environmental Performance		
Receptor	**Environmental Performance Outcomes**	**Measurement Criteria**
	As a result of implementation of the suite of mitigation measures, SRW are not exposed to sound levels that result in auditory impairment or displacement from BIAs or HCTS.	
	As a result of shutting down the sound source when: - any pinniped or dolphin is observed within 500 metres, - any whale is detected within 2 km of the sound source, and - any low frequency cetacean observed within 9 km of the sound source Cetaceans will not be exposed to sound levels associated with auditory injury.	
	As a result of the implementation of real-time monitoring and activity limitations, SRW are not exposed to sound levels that cause substantial behavioural disturbance within or adjacent to BIAs or HCTS.	
	As a result of implementing shutdown or relocation procedures if a blue whale is detected within the 5 km ensonified area. blue whales will not be exposed to physical injury from sound exposure.	
	As a result of implementing shutdown or relocation procedures when a SRW enters the 13 km ensonified area.	
	Underwater sound emissions from the Regia MSS are empirically measured and validated through the sound source verification procedure to ensure they remain within levels that do not cause injury or unacceptable disturbance to Southern Right Whale.	
	As a result of the implementing the suite of mitigation measures, marine mammals will not experience auditory injury or sustained behavioural disturbance affecting survival, reproduction, or population distribution.	
Divers, Swimmer, and Surfers	Received sound levels at coastal areas accessible by coastal users will not exceed the human health safety criterion relating to amenity value.	Operational records and discharge logs confirm that sound levels at the source did not exceed the modelled parameters established to meet human health and safety criteria for coastal amenity value, with compliance documented through sound source output monitoring during activity.

Environmental Performance		
Receptor	**Environmental Performance Outcomes**	**Measurement Criteria**
Identified Cultural, Social and Economic Features	Social, cultural, and economic features are protected, sustaining their value for people and communities.	Behavioural observation reports, audits, verified incident reports, monitoring records and independent evaluations confirm no disruption to critical life-cycle behaviours of identified species, supported by documented mitigation measures. Compensation for verified income losses, such as reduced catch volume or displacement, is validated via claims assessments, economic desktop study, fish stock data, and spatial access mapping.

Control Measures	Environmental Performance Standards	Measurement Criteria
Survey Environment Advisor	Maintain communication with the Environment Officer, the Officer of the Watch, the Marine Fauna Observers, and PAM Operators, and the Coastal Whale Monitoring Teams (WMT) to implement shut down procedures as per the Fauna Management Plan.	Communication and detection logs confirm that the Survey Environment Advisor maintained continuous coordination with all observers/detectors with timely detection information provided to the Environment Officer and documented adherence to shutdown procedures as outlined in the Fauna Management Plan.
	Provide detection information to the Environment Officer.	
Environmental Officer	Convene the Whale Expert Panel to seek guidance on the detection circumstances and procedural responses to detections.	Records of meeting logs, communication reports, and shift documentation confirm that the Environmental Officer maintained 24/7 support, convened the Whale Expert Panel as needed, and promptly communicated all whale detections from external sources to the Survey Environment Advisor, ensuring timely procedural responses to detections as per established protocols.
	Communication of whale detections from other sources to the Survey Environment Advisor throughout the duration of the activity.	
	Maintain a 24/7 onshore presence to support the procedural responses to detections.	
	Issue tasks to marine fauna detectors and maintain a record of all taskings.	
	Review and approved the daily assignments of the Whale Monitoring Teams for the Coastal SRW Monitoring Plan.	
	Coordinate completion of the Sound Source Verification Procedure (Appendix G6) and ensure functionality of SSV buoys prior to survey commencement.	
Marine Fauna Observers	Two MFO's will always be resident on the survey vessel and will maintain a watch during daylight hours.	POB logs and daily records confirm that two MFO's were continuously present on both the survey and spotter vessels during daylight hours,

Control Measures	Environmental Performance Standards	Measurement Criteria
	Two MFO's will always be resident on the spotter vessel and will maintain a watch during daylight hours.	maintaining active watch and providing immediate notifications of any fauna observations to the Survey Environment Advisor and Officer of the Watch, as required by monitoring protocols.
	Fauna detections result in timely implementation of required mitigation responses in accordance with the Fauna Management Plan, including shutdowns or relocation if thresholds are exceeded.	
Passive Acoustic Monitoring Operators	One PAM Operator will always be resident on the survey vessel and will maintain a watch during nighttime hours.	POB logs confirm that a PAM Operator was continuously present on the survey vessel during nighttime hours, conducting active acoustic monitoring and providing immediate notifications of any detections to the Survey Environment Advisor and Officer of the Watch in accordance with procedural requirements.
	Fauna detections result in timely implementation of required mitigation responses in accordance with the Fauna Management Plan, including shutdowns or relocation if thresholds are exceeded.	
Relief PAM/MFO Observer	One additional MFO and PAM Operator will always be resident on the survey vessel to provide relief as needed.	Detection records verify immediate reporting of any acoustic detections to the Survey Environment Advisor and Officer of the Watch, with timestamps confirming prompt communication.
Whale Expert Panel	The whale expert panel will comprise at least four people with an expert in each of the following areas: Southern Right Whales Blue Whales Fauna Detections CGG Seismic Operations In addition, a First Nations knowledge holder participation can be facilitated through the Sea Country Protection Plan (Event ID EVT352).	Pre-survey meeting minutes confirm panel attendance and approval of the Fauna Management Plan, including recommendations for implementation resources.
	Recommendations from the Whale Expert Panel are incorporated into the activity's operational and mitigation plans to ensure cetaceans interactions remain of an acceptable level.	Meeting logs verify that the Whale Expert Panel convened as requested by the Environmental Officer and every two weeks, with minutes documenting any recommendations made.
	The whale expert panel will meet on request of the Environment Officer and at least fortnightly during the activity.	

Control Measures	Environmental Performance Standards	Measurement Criteria
Spotter Vessel	The spotter vessel will position itself at the most likely point of interaction with Southern Right Whales or Blue Whales, as directed by the Environment Officer, based on the recommendations of the Whale Expert Panel.	Positioning logs and communication records confirm that the spotter vessel was strategically placed at locations based on the standards, or as improved by written recommendations from the Whale Expert Panel.
	BW Mode: The spotter vessel will maintain position 20 km to the west of the survey vessel.	
	SRW Mode: The spotter vessel will travel parallel to the seismic vessel, 20km away and on the northerly side, while the seismic vessel is acquiring lines 31-67.	
	The spotter vessel will have PAM and position itself to maximise the probability of detecting low-frequency cetaceans at distances well beyond defined behavioural-effect thresholds (shutdown distances), enabling timely implementation of required mitigation responses.	PAM records, vessel-tracking data, and spotter logs verify PAM operation and positioning that enabled early detection of low-frequency cetaceans beyond shutdown distances, with detections communicated and responses implemented as required.
Spotter Vessel Procedures	BW and SRW Scouting Mode: The spotter vessel conducts pre-start and pre-turn scouting 10 km ahead of the survey vessel	Tasking records, daily reports, and vessel tracking data show the movement, mode, and observations of the spotter vessel and demonstrates that routes were adjusted in response to fauna sightings or environmental changes.
	SRW Sentry Mode: The spotter vessel will travel parallel to the seismic vessel, 20km away and on the northerly shoreside of the seismic vessel, while it is acquiring lines 31-67	
	Blue Whale Sentry Mode: The spotter vessel maintains a position 20 km to the west of the survey vessel	
Sound Source Verification (SSV) Buoys	Three SSV buoys must be deployed 4–6 weeks before seismic acquisition, subject to safe weather conditions, at locations proximate to Cape Nelson, Logan's Beach, and Cape Otway and be functional throughout the survey.	Deployment records and AHS notification confirm that the SSV buoys were installed. GPS records show the location and daily function tests confirm operability.
	If one SSV buoy becomes non-functional, remaining buoy data streams and drift-recording deployments will be used to maintain near real time verification of ambient and seismic sound levels until the buoy is restored.	Deployment records and AHS notification confirm that the SSV buoys were installed. GPS records show the location and daily function tests confirm operability. Daily reports show alternative measures deployed if buoys non-functional.
	If two or more SSV buoys become non-functional, contingency drift-recording and available fixed loggers will be deployed and prioritised to maintain sufficient spatial coverage for real-time sound-field verification until systems are restored.	

Control Measures	Environmental Performance Standards	Measurement Criteria
	Each SSV buoy must be fitted with a multi-channel broadband hydrophone capable of detecting ambient underwater sound and with communication systems capable of near real-time relay of pre-programmed exceedances.	Equipment specifications show hydrophone and communication capability. Data received shows time, date, and sound levels recorded.
	Each SSV buoy must record continuous broadband (10 Hz–25 kHz) ambient sound with complete 1-second RMS data streams suitable for generating valid 3-minute L75, L90 and L95 distributions ≥95% of the time, verified through automated integrity checks and post-download analysis.	Sound spectrograms from each buoy show compliance with data requirements for each buoy.
	All three SSV buoys must be cross-calibrated (both moored and unmoored) to establish each buoy's baseline ambient signature and quantify mooring-related noise.	Audio files of calibration tests show results and any adjustments made for calibration.
SSV Procedure (Appendix G6)	The IMOS Passive Acoustic Observatory dataset (2009–2017) must be downloaded, filtered to September–November, and analysed to produce a statistically valid mid-shelf ambient baseline distribution prior to SSV deployment.	Analysis report shows: (i) full download of the 2009–2017 IMOS dataset. (ii) extraction of all September–November acoustic data across all available years. (iii) generation of percentile distributions (L5, L25, L50, L75, L90, L95)
	At least six months of nearshore ambient sound recordings from multiple loggers in the SRW Reproduction BIA must be successfully collected, downloaded, and analysed to produce percentile distributions (L5–L95) suitable for validating baseline calculations.	Deployment logs and analysis outputs shows: (i) ≥8 months of continuous recordings from all nearshore loggers within the BIA (ii) successful download of all logger files with verified time synchronisation (iii) production of broadband percentile distributions (L5–L95) consistent with the methodology used for the IMOS mid-shelf baseline.
	All SSV buoys and bottom-mounted hydrophones will be deployed, positioned, and calibrated in accordance with the procedure to ensure accurate, comparable and reliable recording of ambient and survey-related underwater sound.	Deployment records, calibration logs, baseline ambient datasets, drift-measurement results at prescribed distances, and verified acoustic data packages (including metadata, diagnostics, and positional information) demonstrate that all monitoring equipment was correctly deployed and calibrated, that a minimum four-week ambient baseline

Control Measures	Environmental Performance Standards	Measurement Criteria
	Ambient sound levels will be continuously recorded at all designated sites for at least four weeks prior to acquisition to establish a robust, location-specific baseline for subsequent comparison.	was collected, that seismic sound levels were measured at 5–20 km during acquisition, and that all acoustic data were quality-checked, backed up, and transmitted in accordance with the procedure.
	During seismic acquisition, sound levels at 5 km, 10 km, 15 km and (if required) 20 km will be measured through drift deployments to provide real-time verification of the horizontal extent of the seismic sound field.	
	All acoustic datasets, metadata, logger diagnostics, and positional information will be verified, backed up, and transmitted in accordance with the procedure to ensure data quality and traceability.	
Pre-survey and aerial surveillance procedures	SRW: Monitor SRW presence/absence in the reproduction BIA from 1 May until 31 October in accordance with the Whale Coastal Monitoring Programme (Appendix G5).	Aerial survey logs confirm flights were conducted with sufficient coverage to detect presence of Southern Right Whales or Blue Whales within the monitoring zone. Flight results were used to inform the decision to commence or delay the activity.
	Data from all relevant published sources and social-media platforms is actively gathered, verified, and reviewed to support early prediction of Blue Whale migration speed and progression, enabling determination of the earliest likely arrival date in the Otway region and timely activation of 'Blue Whale Mode'.	Weekly records demonstrate that published reports and social-media sources were reviewed, with any Blue Whale sightings or migration indicators documented and assessed to update arrival predictions and inform startup of 'blue whale mode'.
	The seismic source will only be discharged in the Pygmy Blue Whale foraging BIA off Otway when the presence and distribution of Pygmy Blue Whales and other foraging whales have been assessed by CGG and confirmed to be compatible with the activity proceeding without causing unacceptable disturbance.	Whale monitoring data (visual and acoustic) confirm that the distribution and behaviour of Pygmy Blue Whales and other foraging whales were assessed prior to discharge of the seismic source, and that the activity was authorised to proceed only where the risk of disturbance was determined to be acceptable based on current detections and environmental conditions.
	Conduct daily weather-determined aerial surveillance from Cape Nelson starting two weeks after the first blue whale sighting at Augusta (WA) until the arrival of blue whales in the region is confirmed.	Aerial surveillance logs, flight reports, and meteorological records confirm that daily weather-permitting flights were conducted from Cape Nelson.
Pre-Start Up Procedure	Monitoring (visual and acoustic) must always be carried out, starting 24 hours prior to any start-up of the sound source during the day.	Detection logs confirm that monitoring for cetaceans began 24 hours prior to each planned sound source start-up, with continuous records indicating any sightings and procedural adherence.

Control Measures	Environmental Performance Standards	Measurement Criteria
	Soft start can only commence if there have been: • No confirmed detections of a SRW in the preceding 24 hours from any detection platform (including shore based MFOS): • No detections of a BW within 5km of the sound source. • No detections of any whale within 2 km in the preceding 60 minutes. ○ No detections of dolphins, pinnipeds, or turtles within 500m (except for bow riding dolphins). No start-up of the sound source if there have been three (3) or more shutdowns for any whale (including BWs) in the preceding 24 hr period.	Observation logs and procedural records verify that the soft start was initiated only after meeting all pre-start detection criteria, with documented checks showing compliance with SDZ and recent shutdown requirements.
Start-up Procedures	Soft start of the survey can only commence when there have been no confirmed detections of any BW from all the platforms for a period of one hour. Prior to start up, SEA to check with WMT's and the spotter vessel that no detection of SRW has occurred within the last 24 hours. When the sound source is first turned on soft starts will be undertaken by gradually ramping up the seismic source over a 30-minute period. When the sound source is in low power mode soft start will be undertaken by increasing the seismic source to full power mode (targeting 30 minutes duration subject to operational requirements).	Operational logs confirm that the soft start was conducted with pre-start observations and by gradually increasing the seismic source output over a 30-minute timeframe, with ramp-up intervals documented to ensure compliance. Log records verify that, following operation in low power mode, a soft start procedure was followed to increase the seismic source output to full power, with the procedure documented to meet compliance requirements.

Control Measures	Environmental Performance Standards	Measurement Criteria
	The SRW restart protocol: • 90 minutes prior to acquisition: the spotter vessel will start a pre-clearance detection survey of the line; the spotter vessel will be 20kmahead of the seismic vessel. • 60 minutes prior to acquisition: the MFO's and PAM operators on the vessel will start a pre-clearance detection survey • 30 minutes prior to acquisition : the soft start can commence, and the spotter vessel can resume its position, 20km away and on the northerly side, while it is acquiring lines 31-67.	
	Blue whale restart protocol: • 90 minutes prior to acquisition: spotter vessel starts pre-survey clearance observations at start of line 10km ahead of the survey vessel. • 60 minutes prior to acquisition start PAM and MFOs will start a pre-clearance detection survey • 30 minutes prior to acquisition commence soft-start, spotter vessel transitions to sentry mode (20 km due West of the survey vessel).	
Start-up delay procedures (if sighting)	If flocks of foraging birds are detected within 500 m of the sound source during the soft start procedure, the acoustic source will be shut down and will not be ramped up until all pre-acquisition criteria have been met again. [Paragraph added in response to Matter B15].	Observation logs and procedural records confirm that the acoustic source was set to low power mode upon detection of foraging bird flocks within 500 m, with subsequent ramp-up only occurring after all pre-acquisition criteria were met.
	If any whale is detected in relevant shut down zones (SDZs) during soft start procedures, the acoustic source will be shut down, and another soft start cannot commence until all pre-acquisition criteria have been met again.	Detection and shutdown records confirm that the acoustic source was promptly shut down upon whale detection within relevant SDZs, with records verifying that a new soft start was initiated only after meeting all pre-acquisition criteria.
Operating Procedure	The seismic vessel is not permitted to operate at speeds of more than 6 knots (speed over ground) during acquisition to reduce the risk of vessel collision to whales.	Acquisition vessel speed logs confirm compliance with the 5-knot speed limit during acquisition, with records verifying continuous adherence to speed restrictions.

Control Measures	Environmental Performance Standards	Measurement Criteria
	If a whale approaches within 300m of any vessel, the vessel must: – Reduce speed and maintain at least 300 m from the whale (subject to navigation and vessel safety). – Position vessel to not impede the path of the whale (subject to navigation and vessel safety). – Avoid sudden changes in speed or direction. – Communicate the sighting to the SEA and other vessels.	Daily reports and communication logs document vessel speed reduction, positioning, and communication with the SEA and other vessels upon whale sightings within 300 m, confirming adherence to procedural responses.
	If a dolphin, pinniped, or turtle approaches within 150m of any vessel, the vessel must: Reduce speed and maintain at least 150 m from the dolphin, pinniped or turtle. Position vessel to not impede the path of the dolphin, pinniped or turtle. Avoid sudden changes in speed or direction. Communicate the sighting to the SEA and other vessels.	Daily reports and communication logs verify that vessels reduced speed, maintained a 150 m distance, and followed proper positioning and communication procedures when a dolphin, pinniped, or turtle was observed within proximity.
Shutdown procedures	Shutdown the sound source if medium-large flocks of foraging birds are observed within 500 m of the source. Start-up procedures can commence when the seismic source is > 500 m from flocks of foraging birds.[1]	Observation logs, incident reports, and operational records confirm that the sound source was promptly shut down when required by procedural conditions within specified distances, with documentation showing compliance for each shutdown event.
	Shutdown the sound source if any pinniped, dolphin, or turtle is detected within 500 m of the source (except for bow riding dolphins).	
	Shutdown the sound source if any whale is observed within 2000 m of the sound source.[2]	

[1] This measure has been adopted to protect foraging penguins and other diving birds following consultation.

[2] Based on previous seismic surveys, CGG has chosen to only implement a shutdown zone and not a low power zone to provide another level of protection to all whale species. This is based on the low power zone for whales as detailed in the EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales (Policy Statement 2.1).

Control Measures	Environmental Performance Standards	Measurement Criteria
	If there is an "unidentified baleen whale" within 5 km of the seismic source, this will trigger a shutdown for one hour, or until daylight if at night.	
	Shutdown the sound source upon confirmed detection of any BW within 5km for one hour.	
	Shutdown the sound source if a Southern Right Whale is detected at any time, from any platform, until 24 hours of no detections have occurred.	
	If there are exceedances (as defined in the procedure) of impulsive noise over 120 dB, detected by any SSV buoy the sound source will be shut down. In October, if there have been 14 consecutive days without a SRW detection, the shutdown trigger for repeated impulsive-noise exceedances increases to 140 dB SPL.	
Night-time and low visibility procedures	Start-up may be commenced as per the Soft-Start Procedure if there have not been 3 or more whale instigated shut-down situations during the preceding 24-hour period.	Daily reports confirm that sound source start-up was conducted per the Soft-Start Procedure, with adherence to additional requirements for night-time or low visibility conditions.
	Operations may proceed if there have not been 3 or more whale instigated shut-down situations during the preceding 24-hour period.	
	If there is a SRW detection at night the sound source will be shut down until daylight.	
	If there is a confirmed blue whale PAM detection within 5 km at night the sound source will be shut down until daylight.	
Helicopter Operation Procedure	Helicopters will not fly lower than 1650 ft when within 500 m horizontal distance of a cetacean, except when landing or taking off and will not approach a cetacean from head on.	Flight logs and operational records confirm that helicopter operations aligned with procedural requirements to minimize disturbance to marine fauna.
End-of-Survey Procedures	Shutdown and do not recommence the survey 90 days after the survey started.	Daily reports confirm the start date of the survey (i.e first day of acquisition) and MFO daily reports show records of observations that confirm if the end-of-survey criteria have been met.

Control Measures	Environmental Performance Standards	Measurement Criteria
Drones for coastal aerial surveillance	Each drone must be capable of detecting and visually identifying a Southern Right Whale at a minimum slant range of 25 km using the H30T telephoto camera under clear atmospheric conditions.	Documented pre-season and mid-season validation tests showing the H30T camera can resolve a 10–18 m whale body at ≥12 pixels across at 25 km slant range and that line-of-sight remains unobstructed out to the geometric horizon at ≤120 m AGL. Manufacturer specifications and test reports confirming stable imaging performance within the defined operational wind envelope. Archival of all SRW detection imagery with embedded time, date, and GPS metadata, as verified through periodic QA checks of flight logs and image EXIF data.
	The drone's camera system must provide a minimum of 12 pixels across the critical dimension of a whale at any distance where a detection is claimed, consistent with Johnson/NATO identification criteria.	
	The drone must maintain sufficient gimbal and sensor stability to collect usable detection imagery (optical or thermal) in all operational wind conditions up to the Sub-Optimal threshold of 20 kt sustained winds and 25 kt gusts.	
	All imagery used to verify SRW presence must include time-stamped and geolocatable metadata automatically embedded by the drone's onboard systems.	
Coastal Whale Monitoring Teams (WMT)	For the duration of the SRW season, at least one WMT (1 x MFO and 1 x drone pilot) will perform daily coastal monitoring of the region between Cape Bridgewater and Cape Otway according to the applicable weather-dependent deployment plan.	Daily records verify that coastal monitoring between Cape Bridgewater and Cape Otway was completed by a WMT (1 MFO and 1 drone pilot) in line with the applicable weather-dependent deployment plan.
	When the survey commences until 31 October, at least three (3) WMT's will perform daily monitoring in accordance with Appendix G5 – SRW Coastal Monitoring Programme Implementation Plan.	
	Each WMTs must complete full daily coverage of their assigned coastal zones according to the applicable weather-dependent deployment plan,	
SRW Reproduction BIA - Coastal Detection Shutdown and Restart Procedures	All confirmed SRW detections must be communicated to the SEA immediately, with shutdown initiated within five minutes when the survey is acquiring.	SRW detection log confirms presence in the reproduction BIA. Comparison between acquisition log confirms full power at time of detection. Shutdown log confirms the sound source was shut down in response.
	All unconfirmed SRW detections must be referred to the Whale Expert Panel within two hours, with WMT deployment to verify the sighting within 12 hours where conditions allow.	

Control Measures	Environmental Performance Standards	Measurement Criteria
	Only restart the survey in accordance with the start-up procedures after 24 hours of no detections of SRW from any platform.	
	Conduct aerial surveillance flights with drones at least once per week off Cape Nelson to confirm arrival of blue whales into the region.	
Consultation Management System	Consult with local commercial divers and dive schools to raise awareness for and institute a Diving SIMOPS Plan.	Consultation records show best endeavours to provide the opportunity for local divers to participate in the scoping and implementation of the Diving SIMOPS Plan.
Citizen Science Observations	Maintain open communications with the Arthur Rylah Institute to share information about SRW detections and monitoring.	Consultation records show CGG's efforts to share information on SRW presence and behaviours in the reproductive BIA.
Satellite Detection Technology	Before the survey commences, undertake trials of satellite detection technology for detecting the presence and movements of SRW in the reproductive BIA.	A report of the trial will be made with recommendations for CGG to consider how the detection technology might complement the existing detection methods.

1.9 Light Emissions

Environmental Performance	
Environmental Performance Outcomes	**Measurement Criteria**
Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.	Behavioural observation records, remote monitoring, or third-party assessments confirm no statistically significant reduction or alteration in the frequency, duration, or success of biologically important behaviours within or outside the Biologically Important Area (BIA), with documentation showing comparisons to baseline behaviour data.
Light emissions will be reduced to minimum levels for safe operations and navigation in accordance with the Vessel Management Plan	Operational lighting logs and environmental audits confirm adherence to the Vessel Lighting Management Plan, with records showing that lighting intensity and directional use were minimized to the lowest safe levels during the activity.
Light emissions are managed to avoid displacing turtles or disrupting nesting, foraging, or migratory behaviours within or near biologically important areas.	Behavioural observation reports, environmental audits, and independent assessments indicate no observable impact on critical life-cycle behaviours, validated by pre- and post-activity comparisons and supported by records of mitigation measures implemented during activity.

Control Measures	**Environmental Performance Standards**	**Measurement Criteria**
CGG Marine Assurance System	Ensure that all vessel lighting complies with the Vessel Lighting Management Plan to minimize light emissions to levels required for safe operations and navigation.	Operational lighting logs and environmental audits confirm that lighting intensity and direction align with the Vessel Lighting Management Plan.
Survey Environment Advisor	Monitor and advise on vessel light emission practices to ensure compliance with the Vessel Lighting Management Plan.	Daily reports verify that light emissions are managed according to the Vessel Lighting Management Plan, with documented adjustments made as necessary.

2 Document Control

Version	Date of Revision	Author/Reviewer	Summary of Changes
0.0	29 March 2023	MS	Template created.
0.1	9 April 2023	MS	Community Liaison Program added.
0.2	5 May 2023	MS	Project vessels, IMS risk assessment procedure, marine assurance system, and bunkering procedure added.
0.3	7 May 2023	MS	Sail line procedure added. Reframed all measurement criteria to be more detailed.
0.4	28 August 2023	MS	Marine mammal adaptive management plan, and marine mammal observers added.
0.5	14 September 2023	MS	Acquire seismic on paper, and OPEP/OSMP added. Added column to EPSs to show whether the standard was adopted because of the consultations.
0.6	24 September 2023	MS	Moved into Regia MSS document template. Cultural heritage protection program, and Adjustment protocol added. Modified throughout to include all requirements from impact and risk assessments.
0.7	2 October 2023	PR/LT	CGG Review.
1	20 December	MS	Updated following CGG review and consultations with relevant persons.
2	15 May 2024	MS	Updates following public comment and the adoption of additonal environmental performance standards for spotter vessel, an additional MFO/PAM Operator.
3	28 October 2024	MS/CT/AH	Updated following NOPSEMA assessment.
4	16 April 2025	MS	Updated following NOPSEMA OMR 1 Letter
5	9 December	CT/RH/EO/MS	Updated following NOPSEMA OMR 2 letter and consequentail changes between submissions.

Annex 1: Public Comment

The following consultation feedback was received since the beginning of the public comment period starting 25 January 2024. As this feedback relates to a control measure, the Fauna Management Plan (FMP), details of how this feedback has been incorporated into the FMP are stated in this parent document, in Table G1-1 below.

Table G1-1 - Public comment input

Matter	Matter ID	Changes made arising from public comment
Matter: Impacts on fin and sei whales	M36	EP Appendix G2 (Fauna Management Plan) has been updated to include species exhibiting biologically important behaviours, being Fin and Sei Whales.
Matter: MFOs/MMO's do not have a 360-degree view, the use of one MFO/MMO is inadequate.	M45	CGG has considered these claims and has determined that additional MFO coverage is appropriate to further mitigate the potential for whales to go undetected within the 3 km observation zone. Consequently, CGG has has updated EP Appendix G2 (Fauna Management Plan), EP Appendix F3 (Acceptability Assessment) and EP Appendix G1 (Environmental Outcomes) to include an additional MFO/ PAM operator will be present on the vessel to support fatigue management. In addition to the two MFOs on the seismic vessel, two dedicated, trained and experienced MFOs will be onboard a dedicated spotter vessel at all times. In addition, officers of the watch on the attending support vessels will be trained to identify whales during daylight hours to support the visual detection of marine mammals.
Matter: Limitations of MFOs/MMOs when detecting marine mammals	M43	CGG has considered these claims and has updated EP Appendix G2 (Fauna Management Plan), G1 (Environmental Performance) and F3 (Acceptability Assessment) to include an additional MFO/ PAM operator to ensure fatigue management is appropriately addressed with allowance for 24/7 coverage.
Matter: The use of two PAM operators is inadequate.	M49	
Matter: Impacts on whales and whale songlines	FN05	CGG has considered these claims and the identified potential impacts and their measures concerning First Nations cultural values regarding whales has been added to Appendix G2, Fauna Management Plan, Annex 2.
Matter: Impacts to dive-based fisheries	F17	CGG has considered this claim and, based on the updated secondary sound modelling, has updated EP Appendix E8 (Impact Assessment – Underwater Sound: Surfers, Divers and Swimmers), Appendix A2 (Description of the Activity) and M#01: Activity limitation, to reflect that the sound source will not be discharged at full power from areas which result in an exceedance of the safety criterion for recreational divers, surfers and swimmers along the coastline. CGG has also made updates to modelling in Appendices (E1, E2, E3, E4, E5, E6, E7, F1 F3, G1 and G2.).
Matter: Mitigating sound exposure impacts to seabirds	B15	Clarification has been provided in EP Appendix E5 (Impact Assessment – Underwater Sound: Birds) and EP Appendix G2 that the acoustic source will be reduced to the low power setting if flocks of foraging birds are observed by the Marine Fauna Observer within 500 m of the source. Full power can commence when the seismic source is > 500 m from any flocks of foraging birds.

Annex 2: Objections and Claims Raised from Consultation

During the consultation process relevant persons were invited to raise objections and claims about the adverse effects of the activity. An assessment of merit of each objection or claim has been made by CGG which can be found in the consultation report using the Feedback ID number shown in Table G1-2. If an objection or claim had merit and was relevant to this assessment it has been included in the table below.

Table G1-2 - Objections and Claims raised from consultation

Feedback ID	Objection or Claim Summary	Titleholder Response	Event ID
4374	Claims that the Regia survey conflicts with the SRW National Recovery Plan, which stipulates that actions within or near southern right whale BIAs and HCTS must not prevent the whales from utilizing the area or cause auditory impairment. Additionally, the plan requires that such actions minimize the risk of behavioral disturbance.	Event ID 6529 - CGG has outlined several commitments to ensure compliance: • The proposed activity will occur before SRWs arrive or after they depart, with pre-survey monitoring in place to reasonably detect SRWs migrating to or from the reproductive BIA, and pre-start conditions if SRW'd are detected. • The Regia MSS EP includes extensive detection measures, covering multiple methods to detect SRWs within a 15 km radius, exceeding the requirements in the SRW National Recovery Plan's Policy Statement 2.1. • CGG will shut down the sound source if a SRW remains resident in the 15 km ensonified area for more than 12 hours or if a SRW cow and calf pair is observed within 10 km of the sound source. • SRWs within the reproductive BIA will not be exposed to underwater noise levels exceeding thresholds for permanent threshold shift (PTS), temporary threshold shift (TTS), or behavioral response thresholds. Further details on the control measures are available in Appendix G1 of the Regia MSS EP.	6410
4395	The project is adjacent to Warrnambool's Logans Beach Whale Nursery for Southern Right Whales and upstream of the Bonney Upwelling Key Ecological Feature, which could be affected.	The titleholder acknowledges this and has spent two years preparing a comprehensive Environmental Plan (EP). This process included ongoing consultations with communities and individuals, summarizing the EP into webinars, information sheets, and holding in-person meetings. The team recognizes the Otway region's marine environment as both spectacular and dynamic and believes environmental assessments must be thorough and detailed to respect its importance. Impacts are assessed in the Environmental Plan (EP) and can be found in Appendix E7 and F3. Measures to minimise adverse impacts to whales and ensures the Regia MSS does not prevent SRW and BW utilising their BIAs include: No discharge of the sound source in January, February, March (when the upwelling is in its peak month), the sound source will only be discharged in the Pygmy Blue Whale foraging BIA	6432

Feedback ID	Objection or Claim Summary	Titleholder Response	Event ID
		when low numbers of Pygmy Blue Whales and other foraging whales are in the BIA off Otway, and no discharge of the sound source within 15 km of the Southern Right Whale Reproduction BIA or Habitat Critical to Survival (HCTS) while Southern Right Whales are present in the BIA and HCTS. The full list of measures is included in Appendix E7 Section 9 and G1. The claim that some krill larvae from the proposed Regia MSS area may reach upwelling regions is acknowledged, but there is no evidence to support the idea that this area is a key source for krill in the Bonney Upwelling system. Krill larvae from across the broader region could also end up in the upwelling area. No cause-and-effect pathways have been identified that show the Regia MSS area as uniquely important for krill supply in the region. (Event ID 6815)	
4405	Objects to the assertion that ± 50% interannual variation in upwelling extent, mostly climate-driven, has not constrained whale population recovery.	Whales have evolved to handle significant fluctuations in their food source, with some years yielding more biomass and others less. The Regia EP provides references to support this argument. Upon closer examination of Wiedenmann et al. (2011), which the stakeholder cites, it becomes clear that while whales can adapt to decreases in krill abundance in a particular area, the net effect on their population vital rates is negligible. Wiedenmann et al. (2011) also suggest that blue whales may adjust their foraging behaviors in response to changes in local environmental conditions, mitigating the impacts of declines in krill abundance. They note that blue whales exploit different feeding areas based on large-scale prey abundance and can concentrate in productive areas when prey is scarce, such as during El Nino years (Benson et al. 2002, Bailey et al. 2010). Furthermore, Wiedenmann et al. (2011) propose that blue whales are better equipped to cope with environmental changes than species with more restricted foraging areas, thanks to their adaptive foraging behaviors and ability to travel long distances in a foraging season. (Event ID 6815)	6432
4454	Claims uncertainty due to reliance on fixed buoy, as this method is proposed as the sole strategy beyond visual and towed PAM detection ranges, means risks to threatened species have not been reduced to as low as reasonably practicable, and that CGG's environmental management system is not effectively implemented.	The EP acknowledges the limitation regarding guaranteed triangulation with the fixed buoy acoustic detection system. However, the system is one part of a multi-faceted detection and mitigation strategy that also includes towed PAM, visual observers, aerial surveys, and spatial/temporal activity restrictions. This combination of measures supports the	EVT132

Feedback ID	Objection or Claim Summary	Titleholder Response	Event ID
	Stakeholder argues that the system's effectiveness is undermined because triangulation of detections is not guaranteed and the testing protocol requires only a single successful unit test before deploying an array.	implementation of the defined shutdown zones and activity limitations, thereby managing risks to ALARP and achieving acceptable environmental outcomes for species like BW and SRW. To note, an incorrect reference was used by the stakeholder.	
4455	The objection argues that the Environmental Plan's reliance on "near real time" data transmission between Acoustic Detection Monitoring operators and seismic operators is flawed because the term is undefined, with no limits on latency or provisions for equipment and communication failures in offshore conditions. The objection states that given the speed of whale movement and the immediacy of sound exposure, the lack of clear parameters renders the measure unreliable. Without evidence that the system can function effectively, the objection maintains that the control cannot be shown to reduce impacts to ALARP, and the ambiguity means the plan fails to meet regulatory requirements for appropriate, measurable environmental performance standards.	In Appendix G1 the EP describes standards for the control measures, including: One ADM Operator to always listen for LF cetacean calls for the duration of the survey and immediately communicate positive detections of LF cetaceans to the Environmental Officer. Further information on the towed and tethered ADM is contained in Appendix C7. This has not been made publicly available due to being commercial in confidence. In addition, the system is one part of a multi-faceted detection and mitigation strategy that also includes towed PAM, visual observers, aerial surveys, and spatial/temporal activity restrictions. This combination of measures supports the implementation of the defined shutdown zones and activity limitations, thereby managing risks to ALARP and achieving acceptable environmental outcomes for species like BW and SRW. To note, an inncorrect reference was used by the stakeholder.	EVT132
4456	The objection contends that CGG's proposed tethered buoy Passive Acoustic Monitoring (PAM) system is an unproven and unreliable primary mitigation measure for detecting marine mammals beyond the range of visual observation and towed PAM. It highlights contradictions within Appendix F5, which claims such systems have been used in seismic surveys while also stating their application in this context is "unknown." Published research shows only limited use in very different settings, such as large-scale Arctic noise monitoring arrays, rather than real-time whale detection. The objection concludes that relying on this experimental technology as a primary safeguard does not meet the regulatory requirement to reduce environmental impacts to ALARP, given the absence of evidence demonstrating its effectiveness in comparable operational environments like the Otway Basin.	Regarding the alleged contradiction in F5: The EP describes both the potential and general use of PAM systems deployed near the survey area (which can include buoys) during seismic surveys for real-time monitoring, and then a detailed, vendor-specific assessment of the actual documented history of particular tethered buoy PAM products. As stated in the EP, the PAM system is one part of a multi-faceted detection and mitigation strategy that also includes towed PAM, visual observers, aerial surveys, and spatial/temporal activity restrictions. The tethered buoy is also undergoing real-world testing, prior to any activity. This combination of measures supports the implementation of the defined shutdown zones and activity limitations, thereby managing risks to ALARP and achieving acceptable environmental outcomes for species like BW and SRW.	EVT132

Feedback ID	Objection or Claim Summary	Titleholder Response	Event ID
4457	The objection references NOPSEMA's 2019 inspection report for the Otway Basin 2DMC Marine Seismic Survey, which concluded that published scientific evidence does not support passive acoustic monitoring (PAM) as an effective method for detecting Whales, including foraging Blue Whale and lactating females with calves, when the system is towed directly behind an active seismic or support vessel, stating that CGG has not addressed known limitations and therefore is inconsistent with the precautionary principle without providing peer-reviewed evidence that addresses the limitations previously identified.	The 2019 comments from NOPSEMA are related to a different proposal, with an alternative towed PAM system. The Sercel Quietsea PAM system has been accepted and used during Australian seismic surveys. In addition, as stated in the EP, the PAM system is one part of a multi-faceted detection and mitigation strategy that also includes towed PAM, visual observers, aerial surveys, and spatial/temporal activity restrictions.	EVT132
4499	GMTOAC notes that the April 2025 EP allows CGG a 90-day continuous window to complete the survey, with a maximum of 60 days of active seismic acquisition. GMTOAC claims that this limited timeframe will not allow CGG to meaningfully implement ongoing review and improvement measures intended to reduce harm to Karntubul.	Appendix G1 outlines that the Environment Officer is responsible for recording, assessing, and addressing environmental incidents within required timeframes, implementing corrective actions, and ensuring continuous compliance through daily reports, weekly audits, and incident reviews. Non-compliance triggers immediate inspection and corrective action, and objections or claims are assessed within 48 hours, with any necessary protections implemented promptly. This framework also illustrates how the proposed CVA project (Event ID EVT337), including the Sea Country Protection Plan, could involve Gunditjmara and supports CGG's position that the CVA should extend before, during, and after the activity.	EVT352
4503	GMTOAC claims inconsistencies and contradictions within CGG's April 2025 EP, particularly regarding the enforceable activity limitations intended to reduce risks to Southern Right Whales and Blue Whales. GMTOAC notes that NOPSEMA previously identified this issue in 2024, stating that duplication and inconsistencies left "no single source of truth" for assessing the EP. GMTOAC believes this fundamental flaw remains unresolved in the April 2025 version, undermining the reliability and enforceability of CGG's proposed control measures. GMTOAC provided the following examples: • Although the EP states that Appendix A2 contains the "final" list of enforceable activity limitations, it later states that Appendix G1 is "controlling" and overrides other lists. GMTOAC notes that many measures appear in one appendix but not the other, and others contain conflicting descriptions.	CGG rejects claims of inconsistency between Appendices A2, G1 and G2, however the stakeholder may have misunderstood the distinction between activity limitations and control measures. Appendix A2 sets enforceable activity limits, measures that restrict operations to avoid or reduce impacts—while Appendix G1 details the control measures, performance standards, and procedures used to implement those limits in line with NOPSEMA's definition of controls. A2 and G1 serve different but complementary purposes, with A2 defining mandatory constraints and G1 outlining the operational steps required to meet them, together ensuring SRWs are protected from behavioural disturbance. G1 and G2 are also complementary rather than conflicting: G2 defines roles and responsibilities, while G1 outlines the controls and measurement criteria used to verify them. CGG maintains that the Environmental Officer and Survey	EVT352

Feedback ID	Objection or Claim Summary	Titleholder Response	Event ID
	For example, Appendix A2 and Appendix G1 both outline conditions for discharging the sound source in the Southern Right Whale reproduction BIA, but the conditions differ in scope and detail. GMTOAC warns that such internal discrepancies create confusion for vessel crews and contractors and could jeopardise the species the measures are intended to protect. • GMTOAC highlights conflicting and unclear role descriptions across appendices, particularly for key positions such as the Survey Environment Advisor and Environmental Officer. Responsibilities differ between Appendix G1 and G2, creating uncertainty about who is accountable for shutdowns, communication, monitoring, aerial surveys, technology trials, and 24/7 oversight. GMTOAC notes that the EP does not clarify whether multiple staff will be appointed to fulfil these demanding roles. • Several measures appear in one appendix but not another. For instance, Appendix G2 requires pre-survey aerial surveys, but this requirement is absent from the controlling Appendix G1. Similarly, Appendix G1 includes commitments to trial drone and satellite detection technologies, but these are not included in the Fauna Management Plan, leaving unclear whether they are required or how their effectiveness will be assessed. • GMTOAC claims that these inconsistencies make it difficult, if not impossible, for operators to understand or correctly implement the required measures, with potential serious consequences for Nyamat Mirring, its ecosystems, and culturally significant species such as Southern Right Whales and Pygmy Blue Whales. They also express concern that CGG's qualitative measures, such as determining whether disturbance is "acceptable", lack objective criteria and fail to involve the Whale Expert Panel or reference Recovery Plan standards.	Environment Advisor roles are clearly aligned across both appendices, collectively providing continuous oversight, shutdown authority, monitoring coordination, and expert engagement. CGG also notes that activity-level commitments, such as drone and satellite detection trials, rightly sit in G1, while position-specific duties like aerial surveys sit in G2. It states that the EP is intentionally structured so A2, G1 and G2 each fulfil distinct functions within an integrated management system, providing operators with clear instructions, objective decision-making criteria, and independent oversight from the Expert Panel. CGG concludes that this framework ensures transparent, robust management and effective protection of Southern Right Whales and Pygmy Blue Whales.	