

# Shire of Irwin Community Roundtable

## Q&A Tracking Table

This document tracks progress of questions and answers raised by the community during the Shire of Irwin Community Roundtable Workshops. This document was prepared as a request from the community at the 7/12/2016 workshop. Please contact Kris Barnes (Independent Facilitator) for any further information (0411 700 259, krisbarnes@iinet.net.au).

Updated 1/12/2017

### Purpose of Workshop

- Further encourage two way conversations between stakeholders and AWE regarding onshore energy projects in the Shire of Irwin, particularly those associated with the proposed Waitsia Gas Project development
- Answer key priority questions that were identified by the community
- Get a project update from AWE
- Discuss nominations for community roundtable membership
- Focus on clarifying what the community wants and how to best help deliver benefits from AWE's ongoing presence in the region

**Questions yet to be  
100% answered**

**Questions  
answered or actions  
complete**

Question answered  
or actions  
completed

Question yet to be  
100% answered

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Questions Raised By Community	Page	Status
<b>Question 1:</b> Does our attendance here (Community Roundtable) give blanket approval for a social licence?	5	Completed
<b>Question 2:</b> What is the specific process and chemicals to be used particular to each well to be fracked in this region? How much of a risk is it to human health and the environment. How is this risk managed?	5	Completed
<b>Question 3:</b> How do land access agreements work in practice?	6	Completed
<b>Question 4:</b> What is the project schedules for AWE: when, start-up time, notice to community?	9	Completed
<b>Question 5:</b> What monitoring is in place.- Baseline, Air and Water. CSIRO Project?	10	10%
<b>Question 6:</b> What are the potential benefits of the industry to each stakeholder? E.g. jobs, sponsorship, infrastructure, subcontracting opportunities?	11	50%
<b>Question 7:</b> What are the chemicals used in the fracking process and how much of a risk are they to the environment and human health should they get into the water supply?	11	Completed
<b>Question 8:</b> What are the processes and procedures used to ensure well integrity – especially in the long term? When has there been a problem in WA with well integrity and what has been done to ensure that similar problems don't happen again?	11	20%
<b>Question 9:</b> What is the approvals process?	11	20%
<b>Question 10:</b> Is it possible to get more public information on the DMP website relating to audits of company performance (e.g. what checks have been done, when?)	12	Completed
<b>Question 11:</b> What is the relevance/significant of toxicity of the chemicals used in the industry compared to other industries (e.g. farms and Roundup)?	12	Completed
<b>Question 12:</b> What soil and water testing is done? Who does it and when?	13	Completed
<b>Question 13:</b> If a tailings dam wall breaks – how is it managed? Does it go into the soil and how is this cleaned?	14	Completed
<b>Question 14:</b> How are chemicals managed at the end of their life of use?	14	Completed
<b>Question 15:</b> How advanced is the science on the chemicals used and what is the confidence level that they are safe (e.g. we thought asbestos was safe)? (raised 7/12/2016 as supplemental question to DMP brief)	14	Completed
<b>Question 16:</b> If there is a well integrity issue, how are chemicals managed?	15	Completed
<b>Question 17:</b> What information is available for historic wells and can we access this?	16	Completed
<b>Question 18:</b> What is the Water for Food program?	17	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

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Questions Raised By Community	Page	Status
<b>Question 19:</b> How will the Water for Food program work if there are existing/future resource leases over the same area?	17	Completed
<b>Question 20:</b> How does Water for Food fit with Irwin Park Farm?	18	Completed
<b>Question 21:</b> Where does Dongara gas go?	18	Completed
<b>Question 22:</b> If we cut of gas in Mid West what impact would it have to the state?	18	Completed
<b>Question 23:</b> Does decommissioning of wells include full rehabilitation?	18	Completed
<b>Question 24:</b> Will local services be used?	19	Completed
<b>Question 25:</b> What is the cost (of the Rehabilitation)?	19	Completed
<b>Question 26:</b> What does rehabilitation (of decommissioned wells) involve?	19	Completed
<b>Question 27:</b> What is landowner wants full rehabilitation (from decommissioning activities)?	19	Completed
<b>Question 28:</b> Who is responsible for clean-up at Jingemia and compliance (referring to whistleblower case)?	20	20%
<b>Question 29:</b> Is the mineral sands company going to mine?	20	Completed
<b>Question 30:</b> What percentage is conventional vs unconventional?	20	Completed
<b>Question 31:</b> CSIRIO: Offered to speak about the work that they have been doing in Mid West relating to the oil and gas industry	20	0%
<b>Question 32:</b> Is Beach Energy about to be onsold?	21	Completed
<b>Question 33:</b> How many more wells are coming in the area?	21	Completed
<b>Question 34:</b> How big is the area to be consumed by the activity? Can this be put into perspective with other activities in the area?	21	Completed
<b>Question 35:</b> How many people in the community will receive training so that they can apply for some of the potential jobs?	22	Completed
<b>Question 36:</b> Can we get a breakdown of the \$16m in FY16 and \$10m in FY17 into the Mid West economy? Who are the top 10 beneficiaries?	22	50%
<b>Question 37:</b> What does the local community get long term?	23	Completed
<b>Question 38:</b> Has AWE modelled how money is tracked and used in the community?	23	Completed
<b>Question 39:</b> How much land has AWE brought up and is there a plan to buy up more land for future activities?	23	Completed
<b>Question 40:</b> How many wells are we going to get close to the townsite?	23	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

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<b>Questions Raised By Community</b>	<b>Page</b>	<b>Status</b>
<b>Question 41:</b> How many employees since 2014 has AWE employed?	23	Completed
<b>Question 42:</b> What is the acreage of the Irwin Farm?	24	Completed
<b>Question 43:</b> Has any consideration been given to use some of the land at Irwin Farm by community organisations to raise money for their cause?	24	Completed
<b>Question 44:</b> Can industry continue to use horizontal drilling?	24	Completed
<b>Question 45:</b> How many slick water practices have been used in WA?	24	Completed
<b>Question 46:</b> How can problems in Pennsylvania be prevented from coming here?	24	Completed
<b>Question 47:</b> How much water is used in the fracking process and how does this compare to other industries?	25	Completed
<b>Question 48:</b> Only 60% of water is returned to the surface. Is this right? There is a general concern on bringing water from other areas and depositing it to new areas.	25	Completed
<b>Question 49:</b> Is the scientific enquiry any different to the one in 2014?	25	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

### Q&A: Progress Status

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 1: Does our attendance here (Community Roundtable) give blanket approval for a social licence? (raised 26/10/2016)</b>						
AWE	AWE answered on 26/10/2016.	Jane Aberdeen	26/10/2016	This question was answered at the 26/10/2016 workshop.	M	Completed
ANSWER	AWE Answer No, participation in the workshop does not indicate social licence approval. The roundtable is in response to stakeholder feedback and the intention is to provide a mechanism for discussion of issues of interest from a range of stakeholders.					
<b>Question 2: What is the specific process and chemicals to be used particular to each well to be fracked in this region? How much of a risk is it to human health and the environment. How is this risk managed? (raised 26/10/2016)</b>						
Department Mines and Petroleum	DMP to prepare to answer these questions at 7th December 2016 workshop.	DMP	7/12/2016	This question was answered at the 7/12/2016 workshop. Link: Additional questions were also raised and are contained in Supplemental Questions and then tracked from Questions 10-17.	H	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP Answer:</p> <p><u>What is the specific process and chemicals to be used particular to each well to be fracked in this region?</u></p> <ul style="list-style-type: none"> <li>All chemicals used by the industry must be disclosed in a transparent process as required by regulation</li> <li>Chemicals used in all wells are available on the DMP website <a href="https://ace.dmp.wa.gov.au/ACE/Public/PetroleumProposals">https://ace.dmp.wa.gov.au/ACE/Public/PetroleumProposals</a></li> <li>During the workshop the community visited the DMP website to confirm this process</li> </ul> <p><u>How much of a risk is it to human health and the environment? How is the risk managed?</u></p> <ul style="list-style-type: none"> <li>Fracking fluid is made up of 90% water, 9.5% sand, 0.5% chemicals. Chemicals are added for different reasons (e.g. breakers)</li> <li>Brad provided an analogy of the chemicals used in the onshore energy industry. He used the example of fracking fluid having similar toxicity to a backyard swimming pool. Risk to human health was minimal</li> <li>There is a specific process to assess chemical risk AS/NZS ISO 31000:2009 Risk Management Standard</li> <li>Brad explained that there are 3 key aspects – chemical hazard source, pathway and exposure receptor. All three of these are needed for a risk to be realised.</li> </ul>					
<b>Question 3: How do land access agreements work in practice? (raised 26/10/2016)</b>						
Sally O’Brien (Landowner)	Sally to provide her personal experience on how the land access agreements have worked from her perspective.	Sally O’Brien	7/12/2016	This question was answered at the 10/5/2017 workshop. Further questions were also raised and are captured as subsets below.	H	Completed

Question answered  
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completed

Question yet to be  
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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p><u>Early Days</u></p> <ul style="list-style-type: none"> <li>Sally’s family came to the area in the 1930’s</li> <li>There had been some “cowboy” oil and gas companies come through the region in the past and undertook seismic surveys. Companies approached farmers individually.</li> <li>In the early days, Sally felt that there wasn’t much that her family could do about oil and gas companies coming onto their land. This had caused her concern because she felt the integrity of her products and family was important</li> <li>Sally expressed to the workshop that her family cared deeply for the land and wanted to hand it over to the next generation in even a better condition than how they received it.</li> </ul> <p><u>2011</u></p> <ul style="list-style-type: none"> <li>Origin, with AWE as a minor shareholder, approached Irwin landholders regarding conducting bar far the most intensive seismic survey ever to be conducted in the region</li> <li>All landholders initially worried about what work they wanted to do</li> <li>Sally was also concerned that companies were approaching farmers individually rather than as a collective. Local landholders joined together to collectively negotiate access agreement and compensation rates. Successful outcome.</li> </ul> <p><u>2014 - today</u></p> <ul style="list-style-type: none"> <li>AWE sought regulatory approval for Irwin-1 appraisal well and approached our business to negotiate an access and compensation agreement</li> <li>We had a family discussion on what this meant to us. We believe that we are consumers of energy and that it would be hypocritical of us if we didn’t do it. Having it on our land gives us the opportunity to influence how the process is conducted and managed for all. Developed what we felt was a fair access and compensation agreement with AWE representatives over a period of nearly 12 months</li> <li>The families experiences from many years of dealing with oil and gas companies assisted in the development of a land user access agreement template, a joint initiative of farming groups and industry</li> <li>We had good input into appropriate site access (i.e. avoiding direct access in some circumstances and getting a good new road where we wanted it)</li> <li>We will get a new agreement it the company chooses to go into production phase. We feel our agreements give us some control</li> <li>We are always looking out for new technology with oil and gas so that things can be done better</li> <li>It is always best to keep communicating and trying to find common ground and agreement; all the while getting you the best outcome. This was a key theme of Sally’s conversation.</li> </ul>					

Question answered  
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Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
	<p><u>Questions</u>  <u>Do you have a sunset clause?</u>            ANS: Yes</p> <p><u>Does AWE have a right to purchase the farm if gas comes in?</u>            Ans: No</p> <p><u>What happens to compensation if something happens onsite or offsite?</u>            Ans: AWE is responsible for operating within the approvals granted and would have to clean-up any contamination caused as a result of its activities (i.e. on or off-site).</p> <p><u>If I don't have a baseline study am I protected?</u>            Ans: Yes, however, baseline studies help to show cause and effect.</p> <p><u>Have you had any abandoned wells on your property?</u>            Ans: Yes. Two exploration wells but these have been rehabilitated.            Comment: Jane Aberdeen. When you take on exploration you take on decommissioning.</p> <p><u>Has your family had baseline health checks as there could be health issues associated with this industry?</u>            Ans: No</p> <p><u>Facilitator comments:</u> There were also some Q&amp;A related to the commercial interests of Sally O'Brien. The facilitator does not believe that it is appropriate that these conversations are recorded in these notes. It is recommended to contact Sally directly on these questions and answers as they are of a personal nature.</p>					
DMP	DMP provided a brief overview of the process at the 16/2/2017 workshop and contributed to the discussions at the 10/5/2017 workshop.	DMP	10/5/2017		M	100%



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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP ANSWER</p> <p>The DMP provided a short overview of the land access working group. Key points included:</p> <ul style="list-style-type: none"> <li>• A Land Access Working Group has been established to review the statutory framework for land access by the resources industry</li> <li>• The move is a direct response to recommendations from the Standing Committee on Environment and Public Affairs report on ‘Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas’ .</li> <li>• The Land Access Working Group comprises representatives from industry and farmer bodies, local government (WALGA), NGO’ s and various State Government agencies</li> <li>• The working group is chaired by DMP’s Director General</li> <li>• Community consultation will occur in the mid west of Western Australia in the coming months</li> <li>• The first stage of the group is looking at access to free hold land for petroleum activities</li> <li>• The group will provide a report and recommendations no later than 30 June 2018 for consideration by the State Government in relation to resources land access issues.</li> </ul>					
AWE	Provide perspective on their land access agreements.	Jane Aberdeen	7/12/2016	Made comment at 10/5/2017 workshop.	M	100%
<b>Question 4: What is the project schedules for AWE: when, start-up time, notice to community? (raised 26/10/2016)</b>						
AWE	Provide update on project schedules.	Jane Aberdeen	7/12/2016	This question was answered at the 7/12/2016 workshop.	H	<b>Completed</b>

Question answered  
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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>AWE Answer</p> <p><u>Waitsia Gas Project - to date</u></p> <ul style="list-style-type: none"> <li>Senecio-3 well discovered the Waitsia Gas Field in September 2014</li> <li>Appraisal wells, Waitsia-1 and Irwin, drilled in 2015</li> <li>Diagnostic Fracture Injection Tests conducted in July 2016 at Waitsia-1 and Irwin-1</li> <li>Stage 1A - Extended Production Test               <ul style="list-style-type: none"> <li>Involved installing infrastructure to allow gas to flow from two wells through a newly constructed 7km pipeline to the existing Xyris Production Facility</li> <li>Mid West businesses contracted to help (~\$12 m of contracts to local service providers)</li> <li>The Extended Production Test results will help plan for further development (e.g. Stage 2)</li> <li>Commissioned in August 2016 and community launch held, including a site tour.</li> </ul> </li> </ul> <p><u>Waitsia Gas Project - Next steps</u></p> <ul style="list-style-type: none"> <li>Waitsia Gas Project Stage 2 - planning is underway               <ul style="list-style-type: none"> <li>Exploration/appraisal                   <ul style="list-style-type: none"> <li>Two wells planned in April-June 2017                       <ul style="list-style-type: none"> <li>Waitsia-3 - will be on private land near the Yordanogo Nature Reserve. and on the same block as the Mondarra-2 well.</li> <li>Waitsia-4 will be on private, cleared agricultural land near the Xyris Production Facility</li> </ul> </li> <li>Required approvals are nearing completion</li> <li>Results will help Waitsia Gas Project field development planning</li> <li>Stage 2 production will be from free flowing gas (i.e. does not involve hydraulic fracture (fracking) stimulation)</li> </ul> </li> <li>Gas production                   <ul style="list-style-type: none"> <li>A new gas production facility is in early stages of planning. It will be located somewhere east of the Xyris Production Facility on private, cleared agricultural land and provide up to 100 TJ of gas a day when it is operating</li> <li>Following further internal approvals, construction will commence in 2018 with gas being produced in 2020</li> <li>Procurement process will again include local service providers, similar to Stage 1A process</li> </ul> </li> </ul> </li> </ul>					
<b>Question 5: What monitoring is in place.- Baseline, Air and Water. CSIRO Project? (raised 26/10/2016)</b>						
AWE	Provide an outline at the next workshop.	Jane Aberdeen	10/5/2017	In development for 10/5/2017 workshop.	H	10%

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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 6: What are the potential benefits of the industry to each stakeholder? E.g. jobs, sponsorship, infrastructure, subcontracting opportunities? (raised 26/10/2016)</b>						
TBA	TBA	TBA	TBA	TBA	H	10%
<b>Question 7: What are the chemicals used in the fracking process and how much of a risk are they to the environment and human health should they get into the water supply? (raised 26/10/2016)</b>						
DMP	DMP to prepare to answer this question at the next Community Roundtable.	DMP	7/12/2016	This question was answered at the 7/12/2016 workshop. Refer also Question 2 above. Link: Additional questions were also raised and are contained in Supplemental Questions and then tracked from Questions 10-17.	H	<b>Completed</b>
ANSWER	DMP Answer Refer question 2 above.					
<b>Question 8: What are the processes and procedures used to ensure well integrity – especially in the long term? When has there been a problem in WA with well integrity and what has been done to ensure that similar problems don't happen again? (raised 26/10/2016)</b>						
DMP	TBA	TBA	TBA	This question overlaps with Question 16.	M	20%
<b>Question 9: What is the approvals process? (raised 26/10/2016)</b>						
TBA	TBA	TBA	TBA	TBA	M	0%

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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 10:</b> Is it possible to get more public information on the DMP website relating to audits of company performance (e.g. what checks have been done, when?) (raised 7/12/2016 as supplemental question to DMP brief)						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Link: Written answers provided by in supplementation Q&A document.	H	<b>Completed</b>
ANSWER	<p>DMP Answer</p> <p>Answer: In response to stakeholder interest, DMP has developed a <a href="#">Transparency Policy</a> and has several transparency improvement initiatives underway that respond to key issues of interest. An example is DMP's introduction of the <a href="#">down-hole chemical disclosure</a> in 2012, which includes monitoring and reporting. From a regulatory perspective, there are some associated legal issues with publicly releasing site inspection results and data if it may be used at some point as evidence in a prosecution case. Notwithstanding, DMP is investigating ways of presenting a succinct summary of compliance inspections on the DMP website to help improve confidence in operational performance.</p>					
<b>Question 11:</b> What is the relevance/significant of toxicity of the chemicals used in the industry compared to other industries (e.g. farms and Roundup)? (raised 7/12/2016 as supplemental question to DMP brief)						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	<b>Completed</b>

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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP Answer</p> <p>Chemicals used in the resources sector are comprehensively assessed prior to use and carefully monitored during use for each specific activity. As mentioned, the chemical disclosure requirements are rigorously applied. Environment Plans approved for each activity include information about the specific chemical products approved for use. These are available on the DMP website. Use of similar chemicals in other sectors (e.g. broad acre farming, intensive horticulture) are not as closely regulated. The <a href="#">Department of Agriculture and Food</a> (DoAF) is the lead agency for regulating chemical use in agricultural sector. DoAF does not require activity specific assessment, monitoring or reporting. There is lots of information available on the internet for the relative toxicity of various chemicals used by agriculture, mining, medicines, petroleum, etc. The DMP Environmental Risk Assessment for Chemicals provides a good overview: <a href="http://www.dmp.wa.gov.au/Documents/Environment/ENV-PEB-165.pdf">http://www.dmp.wa.gov.au/Documents/Environment/ENV-PEB-165.pdf</a></p>					
<p><b>Question 12: What soil and water testing is done? Who does it and when (raised 7/12/2016 as supplemental question to DMP brief)</b></p>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	<b>Completed</b>
ANSWER	<p>DMP Answer</p> <p>Answer: Soil and water quality are key factors assessed and regulated for each activity. Baseline monitoring is required so once activities are underway and completed, any significant changes in monitoring results can be detected and acted upon promptly to mitigate any impacts. DMP assesses and approves proposed monitoring protocols that have been developed by technical specialists prior to the activities starting. Monitoring protocols focus on the potential contamination source, the pathway and any potential receptor. Ongoing non-specific water monitoring within sumps for chemicals is extremely expensive and not a good use of tax payer resources – instead DMP inspects the chemicals being stored on site against what has been approved for use. Sumps may contain a mixture of drilling, cementing, fracking and waste fluids – so concentrations of chemicals would not be identical to what is in the chemical disclosure information.</p> <p>Water testing of sumps is not undertaken as this water is contained in a lined sump and not released to the environment. If any leaks or spills occur to the environment, then DMP requires companies to undertake soil and water testing as part of their clean up (to ensure that the environment is returned to a non-polluted state). Water quality monitoring is generally undertaken by independent consultants. Baseline groundwater monitoring is also best practice for any drilling activities to get an understanding of water quality pre and post drilling. Monitoring continues throughout the activity and afterwards too.</p>					

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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 13: If a tailings dam wall breaks – how is it managed? Does it go into the soil and how is this cleaned? (raised 7/12/2016 as supplemental question to DMP brief)</b>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document	H	Completed
ANSWER	DMP Answer Answer: Sumps are required to be constructed to overflow rather than break. DMP requires companies to have freeboard (extra) volume in their sumps to cater for exceptional rainfall events. Spill contingency plans must also be approved by DMP to deal with any type of spill (large or small). Overflows / breaches must be reported to DMP, investigated and cleaned up.					
<b>Question 14: How are chemicals managed at the end of their life of use? (raised 7/12/2016 as supplemental question to DMP brief)</b>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	Completed
ANSWER	DMP Answer All chemicals are disposed of at an appropriate DER licensed waste facility. Chemicals contained within evaporation ponds are tested after drilling activities have ceased. If these chemicals are found to be above guideline levels they are removed and disposed of at an appropriate DER licensed waste facility.					
<b>Question 15: How advanced is the science on the chemicals used and what is the confidence level that they are safe (e.g. we thought asbestos was safe)? (raised 7/12/2016 as supplemental question to DMP brief)</b>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	Completed

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Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP Answer</p> <p>Answer: Chemicals are a part of everyday life – and we are exposed to a larger number of chemicals every day. The body of scientific knowledge on approved chemicals is significant and is the foundation for the assessment of risk. If this body of knowledge changes, then we apply that to our new understanding of risks and controls. This is exactly the same for any industry and medical science too.</p> <p>At DMP all chemicals proposed for use by a petroleum company are risk assessed according to WA environment and safety regulations before they are approved or rejected. DMP uses the most current scientific knowledge to assess the toxicity and biodegradability of chemicals. Petroleum companies must demonstrate that the chemicals used do not pose significant risk to human health, the environment or groundwater resources. If a significant risk or potential impact is identified then the proposal is referred to the EPA for an independent environmental assessment.</p>					
<p><b>Question 16: If there is a well integrity issue, how are chemicals managed? (raised 7/12/2016 as supplemental question to DMP brief)</b></p>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	<b>Completed</b>

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100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP Answer</p> <p>There are many classifications of well integrity issues (see Petroleum in Western Australia magazine, April 2015, pp 24—25, available at <a href="http://www.dmp.wa.gov.au/Petroleum/Publications-1601.aspx">http://www.dmp.wa.gov.au/Petroleum/Publications-1601.aspx</a>). The majority of well integrity issues do not allow interaction between the internal contents of the well and the groundwater or surface environment. In circumstances where external well casing may be compromised, if the integrity issue cannot be remediated, the well will be decommissioned. Decommissioning involves installing a series of cement plugs that provide isolation internally between different vertical zones in the well and also provides isolation from the external rock formation.</p> <p>If repair is possible, a steel casing patch (a sort of internal sleeve) may be installed, or a seal can be created by squeezing cement through holes usually involves the application of a patch onto the interior of the casing. To enable patching, the well is filled with fluid containing chemicals including biocides, corrosion inhibitors, and pH adjustors. These chemicals degrade into inactive versions over time. In some cases, fluid density is increased with the use of salts. After the well is patched and normal operations re-commence, the fluid is retrieved to surface from inside the well casing. Loss of the fluid into the rock formation is minimised. Once the repair is completed, the fluid is replaced by a clean water-based fluid which also contains small amounts of corrosion inhibitors, biocides and pH adjustors. This fluid stays within the casing to protect it from internal corrosion. In line with other chemical usage in petroleum wells, the highest risk of using chemicals during well integrity operations occurs at the ground surface. Mitigation measures are kept in place to minimise the risk of such events.</p> <p>A DMP speaker on well management may be available to further answer this question at a later date.</p>					
<b>Question 17: What information is available for historic wells and can we access this? (raised 7/12/2016 as supplemental question to DMP brief)</b>						
DMP	DMP to provide written answer and if necessary talk about this at the next workshop.	Lyn Reid	1/2/2017 (written) 16/2/2016 (talk)	Some informal discussions took place on this question at the 7/12/2016 workshop. Written answers provided by DMP in supplementation Q&A document.	H	<b>Completed</b>



Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DMP Answer            Answer: Information about historical wells is available online through the Department of Mines and Petroleum WAPIMS system (information and free access at <a href="http://www.dmp.wa.gov.au/Petroleum-and-Geothermal-1497.aspx">http://www.dmp.wa.gov.au/Petroleum-and-Geothermal-1497.aspx</a>). To learn about a particular well, select the Wells tab at top and type in the well name and press Search. In the next screen, click on the well name until the row turns blue. Press View Details for Selected Rows and all the publically available information about the well will be displayed in multiple tabs. In general, detailed information becomes publically available two years after the well activity is completed. The Well Completion Report contains significant amounts of information about how the well was constructed, chemicals used during drilling, and the surrounding geology. The report, although highly technical, is often clear enough to be understood by members of the public. For specific questions about available information, please contact the DMP.</p>					
<b>Question 18: What is the Water for Food program? (raised 7/12/2016)</b>						
Department of Water	DoW to provide written answer and if necessary talk about this at the next workshop.	Darryl Abbot	1/2/2017 (written) 16/2/2016 (talk if necessary)	Some informal discussions took place on this question at the 7/12/2016 workshop. Documentation and presentation provided at 16/2/2017 workshop. Written answers provided by DoW in supplementation Q&A document.	H	Complete
ANSWER	<p>DOW Answer            The following links are two brochures that summarise the program and provide detail on the midlands projects. (Link)</p>					
<b>Question 19: How will the Water for Food program work if there are existing/future resource leases over the same area? (raised 7/12/2016)</b>						
Department of Water	DoW to provide written answer and if necessary talk about this at the next workshop.	Mark Canny	1/2/2017 (written) 16/2/2016 (talk if necessary)	Some informal discussions took place on this question at the 7/12/2016 workshop. Documentation and presentation provided at 16/2/2017 workshop. Written answers provided by DoW in supplementation Q&A document.	M	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>DoW Answer Agriculture, including irrigated agriculture, and mining/petroleum activities have co-existed in the Midlands region for a considerable period. Additionally, the government has a clear policy position supporting multiple land use, including petroleum activities and irrigated agriculture, to make the best use of land and water resources.</p> <p>Water for food is about providing updated information to existing landowners to assist them make investment decisions underpinning a move into, or expanding, irrigated agriculture. The program will not impact on existing or future “onshore petroleum” petroleum resource leases, and any future investment decisions by the landowner, and associated approval processes, will not change. Existing regulatory procedures will still apply.</p>					
<b>Question 20: How does Water for Food fit with Irwin Park Farm? (raised 7/12/2016)</b>						
AWE	Answered verbally during the workshop (7/12/2016) and captured in notes.	Jane Aberdeen	7/12/2016	This question was answered at the 7/12/2016 workshop.	M	Completed
ANSWER	<p>AWE Answer Jane explained that the Minister for Water announced the initiative on Christmas Eve 2015. Water for Food staff subsequently met with AWE as Irwin Park Farm had been included in the Water for Food Midlands project area. The project helps provide another example of agriculture and gas sectors coexisting. AWE agreed to assist the project by allowing DoW to install shallow groundwater monitoring bores on Irwin Park Farm</p>					
<b>Question 21: Where does Dongara gas go? (raised 7/12/2016)</b>						
AWE	Answered verbally during the workshop (7/12/2016) and captured in notes.	Jane Aberdeen	7/12/2016	This question was answered at the 7/12/2016 workshop.	M	Completed
ANSWER	<p>AWE Answer Transported via pipeline to Perth for domestic and industrial consumer consumption</p>					
<b>Question 22: If we cut of gas in Mid West what impact would it have to the state? (raised 7/12/2016)</b>						
DMP	Answered verbally during the workshop (7/12/2016) and captured in notes.	Brad Jakowyna	7/12/2016	This question was answered at the 7/12/2016 workshop.	M	Completed
ANSWER	<p>DMP Answer Security of supply impact, cost/price of gas impact</p>					
<b>Question 23: Does decommissioning of wells include full rehabilitation? (raised 7/12/2016)</b>						
AWE	Answered verbally during the workshop (7/12/2016) and captured in notes.	Jane Aberdeen	7/12/2016	This question was answered at the 7/12/2016 workshop.	M	Completed

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	AWE Answer Yes					
<b>Question 24: Will local services be used?</b>						
AWE	AWE answered on 16/2/2017.	Jane Aberdeen	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer AWE will continue using as many local business services as possible in the project, although decommissioning the actual well requires specialist services. The procurement process includes local service providers for general activities required during site rehabilitation like earthworks. AWE is using similar procurement approach to the Stage 1A process.					
<b>Question 25: What is the cost (of the Rehabilitation)?</b>						
AWE	AWE answered on 16/2/2017.	David Guise	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer This year project costs will be about \$7 million.					
<b>Question 26: What does rehabilitation (of decommissioned wells) involve?</b>						
AWE	AWE answered on 16/2/2017.	David Guise	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer Decommissioning involves installing plugs within the well to isolate it from any aquifers, then cutting the wellhead below ground and backfilling to restore the soil profile. Rehabilitation then depends on the landowner's preference for final land use and what area is to be rehabilitated. Usually the land is returned for broad acre cropping or pasture. Need to also be mindful of weeds and soil hygiene especially if working in a conservation area. (Consultant's note: This issue might be worth exploring in a separate workshop agenda item).					
<b>Question 27: What is landowner wants full rehabilitation (from decommissioning activities)?</b>						
AWE	AWE answered on 16/2/2017.	David Guise	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer Our agreements with landowners require us to restore the land to its previous land use and in negotiation with the landowner. Specific details are negotiated with each landowner as some prefer keeping infrastructure such as gravel roads and fences as they are seen as improvements. For example, the Drover-1 well took six months to complete decommissioning and rehabilitation.					

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 28: Who is responsible for clean-up at Jingemia and compliance (referring to whistleblower case)?</b>						
Origin	Answered verbally during the workshop (16/2/2017) and captured in notes. However, AWE cannot speak on behalf of Origin. Action: Rod to send list of questions to Jane Aberdeen for passing onto Origin. Origin to be asked if they would present at a future workshop.	Rod Copeland/ Jane Aberdeen	10/5/2017	Waiting on questions. Origin potentially available to speak at future workshop.		20%
<b>Question 29: Is the mineral sands company going to mine?</b>						
AWE	Answered verbally during the workshop (16/2/2017) and captured in notes.	Jane Aberdeen	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer Tronox has environmental approvals to proceed with the minerals sands mine although they said they have no immediate plans to do so. This reflects the low global demand for mineral sands and low market prices.					
<b>Question 30: What percentage is conventional vs unconventional?</b>						
AWE	Answered verbally during the workshop (16/2/2017) and captured in notes.	Jane Aberdeen	16/2/2017	This question was answered at the 16/2/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer Stage 2 gas is free flowing (conventional). Future appraisal well results may show tight sands present.					
<b>Question 31: CSIRIO: Offered to speak about the work that they have been doing in Mid West relating to the oil and gas industry</b>						

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
CSIRO	CSIRO: Present at the next workshop about the work that they have been doing in Mid West relating to the oil and gas industry			The community agreed at 16/2/2017 to have CSIRO speak at 10/5/2017. However, two factors prevented this. First, the CSIRO representative was not available on 10/5/2017. Also, the priority of this item needs to be discussed against other previous high priorities (see above). Kris Barnes to raise this at 10/5/2017 meeting.		0%
<b>Question 32: Is Beach Energy about to be onsold?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Steve McCracken	8/11/2017	This question was answered at the 8/11/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer Beach Energy is buying the Lattice Energy assets. No participant knew of any other sales plans. Beach Energy is best placed to answer this question.					
<b>Question 33: Question: How many more wells are coming in the area?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Steve McCracken	8/11/2017	This question was answered at the 8/11/2017 workshop.		<b>Completed</b>
ANSWER	AWE Answer About 17 or 18 planned, less than number of wells used for Dongara field. Some will be from same well pad. No need to frack for Stage 2. May be less wells over life of the project depending on appraisal results.					
<b>Question 34: How big is the area to be consumed by the activity? Can this be put into perspective with other activities in the area?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Steve McCracken	8/11/2017	This question was answered at the 8/11/2017 workshop.		<b>Completed</b>

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	<p>AWE Answer Proposed new facility will have smaller footprint than the Hovea Production Facility area. Refer to Dongara gas field area, producing since 1971, which looks like farm land (e.g. existing wells and infrastructure are not noticed by many people now and new development will be similar in appearance). Decommissioning project means overall number of wells will decrease despite Stage 2 development.</p>					
<p><b>Question 35: How many people in the community will receive training so that they can apply for some of the potential jobs?</b></p>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	<p>AWE Answer Facilities operators live locally and are employed through a contracting firm who trains them for the job. Most of the jobs will be through contractors during construction phase. Noted after the meeting: AWE sponsors a STEM scholarship at Geraldton TAFE and people interested are welcome to apply.  Participant Jenny Devereux (Community/MidWest Labour Pool) – provided an example of an 18 year old who was employed for two weeks work experience by a contractor to AWE. (In addition, please refer to Question 24).</p>					
<p><b>Question 36: Can we get a breakdown of the \$16m in FY16 and \$10m in FY17 into the Mid West economy? Who are the top 10 beneficiaries?</b></p>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was partially answered at the 8/11/2017 workshop. Action: Jane offered to provide a breakdown of expenditure into local economy once the update is available.	M	50%
ANSWER	<p>AWE Answer The amount for FY 16 reflects local spend increased as a result of the Stage 1A development. Some of the top ten local companies included Dongara Skip Bins, Mitre 10, MidWest Labour Pool, Dongara Drilling and Dongara IGA. Estimated FY 17 amount provided is based on rates, sponsorships, local wages and work contracted in the Shire. An updated local spend analysis is underway and will be made available.</p>					

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 37: What does the local community get long term?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer Refer to question 24 and 36.					
<b>Question 38: Has AWE modelled how money is tracked and used in the community?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer To a degree. We track sponsorships and partnerships and some of our local expenditure. We are starting a more complete analysis.					
<b>Question 39: How much land has AWE brought up and is there a plan to buy up more land for future activities?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer AWE owns Irwin Park Farm and Locksley Farm. No plans to buy more land for AWE.					
<b>Question 40: How many wells are we going to get close to the townsite?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer Senecio-3, drilled in 2014, is the closest well to the Irwin town site (Refer to project map presented at workshop 6: <a href="http://www.meet2create.com">www.meet2create.com</a> ). No wells are planned for drilling next year and no additional wells will be required for Stage 2 of the development.					
<b>Question 41: How many employees since 2014 has AWE employed?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer Depending on activity levels, AWE engages 12-14 full-time contracted operators at the facilities. These employees live locally. Other companies use fly-in/fly-out and drive-in/drive-out contractors.					

Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
<b>Question 42: What is the acreage of the Irwin Farm?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer Unsure. Think about 12,000 acres.					
<b>Question 43: Has any consideration been given to use some of the land at Irwin Farm by community organisations to raise money for their cause?</b>						
AWE	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jane Aberdeen	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	AWE Answer This suggestion had been mentioned and briefly discussed. No proposal to AWE presented and not yet considered.					
<b>Question 44: Can industry continue to use horizontal drilling?</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	DMIRS Answer Yes, this practice is part of conventional drilling.					
<b>Question 45: How many slick water practices have been used in WA?</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	DMIRS Answer Two. In addition, over 600 wells fracked in WA with no reported incidents. Post workshop, DMIRS provided a link for the community on stimulated wells in WA.  <a href="http://www.dmp.wa.gov.au/Documents/Petroleum/PD-SBD-NST-126D.pdf">http://www.dmp.wa.gov.au/Documents/Petroleum/PD-SBD-NST-126D.pdf</a>					
<b>Question 46: How can problems in Pennsylvania be prevented from coming here?</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed



Question answered  
or actions  
completed

Question yet to be  
100% answered

Stakeholder to Answer	Action	Who	When	Notes on Progress	Priority (H,M,L)	% Complete
ANSWER	DMIRS Answer USA EPA report said that there has been no systemic contamination of water by fracking. Western Australia has a strict regulatory framework for this industry.					
<b>Question 47: How much water is used in the fracking process and how does this compare to other industries?</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	DMIRS Answer Approximately 10 million litres of water (10,000KL) are required for a 10 stage deep shale hydraulic fracture stimulation program of which anywhere from 40 to 60% returns to the surface. This is the equivalent to the annual usage of 15-20 households and much lower than irrigated agriculture. (NB during the workshop the group also agreed that 10 commercial mango trees would use this amount of water in one year). In terms of sustainability of the groundwater resource, the Department of Water and Environmental Regulation would generally consider this a low volume and have a low risk of impacts on the environment or other users.					
<b>Question 48: Only 60% of water is returned to the surface. Is this right? There is a general concern on bringing water from other areas and depositing it to new areas.</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	DMIRS Answer Use of water volume is low compared to other uses. The value of the end use of water is not assessed by the Department of Water and Environmental Regulation, and unless it is clearly wasteful, the Department of Water and Environmental Regulation would not make a value judgement on the best end use for water taken. (NB Please also refer to Q&A questions 10, 12, 18 and 19 relating to water. The Q&A document can be found on the website hosting the community roundtable information: <a href="http://www.meet2create.com">www.meet2create.com</a> )					
<b>Question 49: Is the scientific enquiry any different to the one in 2014?</b>						
DMIRS	Answered verbally during the workshop (8/11/2017) and captured in notes.	Jeff Haworth	8/11/2017	This question was answered at the 8/11/2017 workshop.		Completed
ANSWER	DMIRS Answer It is different because it is a scientific inquiry focused on environmental issues whereas the previous inquiry was a parliamentary inquiry.					

Question answered  
or actions  
completed

Question yet to be  
100% answered

### Commitments: Progress Status

Organisation	Action	Who	When	Notes on Progress	% Complete
<b>Commitment 1: AWE to provide continued support for an independently-facilitated and resourced Community Roundtable</b>					
AWE	Funding obtained from AWE.	AWE	August 2016	Funding obtained for independently facilitated process. However, any person or organization may contribute to these costs if there is concern over conflict of interest of the facilitator.	<b>Completed</b>
<b>Commitment 2: Shire of Irwin to provide Community Roundtable with a workshop venue to use at no cost – Aug 2016</b>					
Shire of Irwin	Shire of Irwin to provide a workshop venue at no cost for the Community Roundtable.	Shire of Irwin	August 2016	Shire of Irwin agreed to provide a workshop location at no cost.	<b>Completed</b>
<b>Commitment Sought Number 3:</b>					
<b>Commitment Sought Number 4:</b>					