





June 2019

Review, findings and update of Operational Policy 13, 2012: Recreation within public drinking water source areas on Crown land

Department of Water and Environmental Regulation June 2019

Department of Water and Environmental Regulation Prime House, 8 Davidson Terrace Joondalup Western Australia 6027 Locked Bag 10 Joondalup DC WA 6919

Phone: 08 6364 7000 Fax: 08 6364 7001

National Relay Service 13 36 77

dwer.wa.gov.au

© Government of Western Australia

June 2019

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. Requests and inquiries concerning reproduction and rights should be addressed to the Department of Water and Environmental Regulation.

ISSN 1447-8331 (online) DWERT1106-04

Acknowledgements

DWER thanks stakeholders that attended meetings and made submissions. Their input has led to a better policy.

Thanks are also extended to the members of the working group that have played an integral role in the implementation and review of Policy 13 issues, and development of Policy 13, 2019.

If you need more information about this review or implementation of Policy 13, please email drinkingwater@dwer.wa.gov.au.

Disclaimer

This document has been published by the Department of Water and Environmental Regulation. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Department of Water and Environmental Regulation and its employees are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

This publication is available at our website www.dwer.wa.gov.au or for those with special needs it can be made available in alternative formats such as audio, large print, or Braille.

Contents

S	ummary	V
1	Background	1
2	Policy review	2
	Feedback and consultation Assessment criteria	
	Policy changes and outcomes	
Т	ables	
Ta	able 1 - Proposed changes to Policy 13 from stakeholder consultation and submissions	5
T	able 2 - Out of scope matters raised in Policy 13 consultation submissions	

Summary

The purpose of Policy 13 is to protect public health and drinking water quality by managing recreation in public drinking water source areas (PDWSAs). In 2012, the Department of Water and Environmental Regulation (DWER) updated the policy and made a commitment to complete a five year review.

Since 2012, we have been working with recreation stakeholders, and an Interagency Collaborative Working Group (IACWG) established by government, to implement Policy 13. The feedback gained over this time has resulted in new supporting recreation guidelines and assessment tools being implemented.

We used the five years of learning with stakeholders to prepare a 2018 draft policy, and discussion paper, for public and recreation stakeholder consultation. This consultation has now been completed and all submissions were considered (see Feedback and consultation section below).

As part of the review we assessed five review criteria from the 2012 policy. All of these criteria were achieved, demonstrating the success of the policy (see Assessment criteria section below).

The review of Policy 13, 2012 is now complete and it has led to an improved Policy 13, 2019 that supports the public health benefits of both recreation and drinking water.

1 Background

Policy 13 was first published in 2003 as Statewide Policy 13: *Policy and guidelines for recreation within public drinking water source areas*. In 2010 a Parliamentary Committee report into recreation activities within PDWSAs was published. This led to Operational policy 13: *Recreation activities within public drinking water source areas on Crown land,* 2012. The attached Policy 13, 2019 continues the key elements and incorporates improvements from this five-year review. The Department of Water and Environmental Regulation (DWER), with the assistance of the Interagency Collaborative Working Group (IACWG), implements Policy 13 in more than 120 PDWSAs across WA.

The IACWG was established by government in 2010 to implement government's response to the Parliamentary Committee's recommendations, and Policy 13. This working group has representatives from:

- Water Corporation
- Department of Health
- Department of Local Government, Sport and Cultural Industries
- Department of Biodiversity, Conservation and Attractions (DBCA)
- DWER.

The working group uses a collaborative and adaptive process to assess, plan and manage recreation within PDWSAs. It considers recreation proposals for events and facilities; provides input to state and local government recreation planning reports; assists in the development of strategic recreation documents; and when needed provides input into reports to the Minister for Water on proposals that vary from Policy 13.

2 Policy review

Feedback and consultation

Through the implementation of the policy DWER and the IACWG have been receiving and hearing feedback from a range of stakeholders since 2012. We have considered this information and experience in the review of Policy 13, 2012 and in preparing the 2018 draft policy for consultation.

The review included consultation of two key documents. The 2018 draft policy and a discussion paper. The consulted draft policy included:

- a recreation assessment procedure developed with the IACWG to implement the policy
- changes to address learnings from some issues associated with implementation, including assessment procedures and flowcharts for proposed recreation events and facilities
- changes to wording, formatting and administrative information to make the policy up to date and easier to read
- more information and new and improved definitions to help clarify how the policy is implemented
- some new recreation opportunities in the outer catchment of some groundwater PDWSAs.

The 2018 draft policy and discussion paper, which explained the proposed changes, were publicly consulted on for eight weeks ending on 3 August 2018. On request the consultation period was extended until 19 September 2018. Key stakeholders were contacted for comment via email during the consultation period including recreation groups and local government.

Two consultation workshops were held in July 2018 at the Department of Local Government, Sport and Cultural Industries, Sport and Recreation head office. We recorded comments at the workshops to be considered as submissions. We also received 29 formal submissions during the comment period from a wide range of interest groups and members of the public and local government. We consulted with the IACWG on an ongoing basis and considered their comments throughout the process.

Assessment criteria

Policy 13, 2012 included five criteria to be considered in its future review. The IACWG considered these criteria against current information and conducted a qualitative assessment. Each criteria was achieved as described below;

1. Ongoing water quality and catchment environmental monitoring.

The Water Corporation has undertaken water quality monitoring on a regular basis that shows water quality has remained stable since 2012.

2. The degree of application or integration of other state government agency policies, guidelines and approvals, associated with recreational activities within PDWSAs.

The Department of Biodiversity, Conservation and Attractions has integrated the policy and recreation application form into their recreation application process to guide recreation within PDWSAs across the state. The Water Corporation also assesses recreation proposal applications against this policy. The IACWG provides a collaborative cross agency viewpoint for recreation and public drinking water source area matters.

3. The continued prohibition of recreation in reservoir protection zones.

Legislation has not changed. Recreation and public access (except along public roads) continues to be prohibited in Metropolitan area reservoir protection zones (RPZs) to protect public drinking water reservoirs from contamination. These zones are recommended for PDWSAs throughout WA in publicly consulted drinking water source protection reports. Consistent with government support for the 2010 Parliamentary Committee report, a by-law to legislatively establish reservoir protection zones across Western Australia in country areas is currently being drafted for further consultation.

4. The type and amount/level of recreation occurring in PDWSA outer catchments.

Recreation events and facilities have been managed through recreation assessments by the IACWG. These assessments require alternative locations outside PDWSAs to be considered in the first instance. Since 2012, less than 25 new recreation events or facilities have been supported by the Minister for Water in the outer catchments of PDWSAs.

5. The development of new or enhanced recreation outside PDWSAs.

New and enhanced recreation has been developed outside PDWSAs. Over \$4 million was spent in the Wellington Dam Catchment Area and about \$5.5 million in the Murray River Water Reserve within Lane Poole Reserve. Recreational facilities have also been developed in Logue Brook Dam (no longer required for drinking water supply) where about \$3.3 million has been spent. The IACWG is currently considering how it can better assist recreation and water catchment strategic planning work across government.

Policy changes and outcomes

The consultation process, implementation improvements and decisions since 2012 have resulted in a number of changes to Policy 13, including:

- adding some new, some clearer and some improved definitions, such as for 'associated facilities' for recreation events
- providing additional information to improve implementation of the policy intent, such as including links to useful contacts and mapping tools

making changes to the administration of the policy where necessary.

More detailed information on the policy changes is included in attached Table 1 and Table 2.

Table 1 includes submissions that were within the scope of the policy review. It shows DWER's response to 41 issues raised in submissions. It includes advice on what stakeholders proposed to change, and where relevant why a proposed change is not recommended by DWER. There were 19 issues raised that resulted in 'changes' to the policy and 22 issues that resulted in 'no changes'.

Table 2 is a list of issues raised in submissions that were outside of the scope of this policy review (which did not include reconsidering the pros and cons of recreation in PDWSAs) because no new information has become available to support more recreation since publication of the 2010 Parliamentary Committee report. Nonetheless, DWER and the IACWG understand the mounting pressure to increase access to our PDWSAs due to a growing population. We will therefore continue to work together to find opportunities for increased recreation and tourism in appropriate areas where it does not pose a risk to our drinking water. To this end, the IACWG is currently considering how it can help progress new recreation development outside PDWSAs. This may occur through a number of mechanisms including the development of a strategic plan.

DWER and the IACWG will continue to implement Policy 13 with continuous learning and improvement. This includes receiving and responding to your feedback. This will ensure the policy remains current and delivers the right level of drinking water public health protection and recreation in PDWSAs.

Table 1 - Proposed changes to Policy 13 from stakeholder consultation and submissions

This table includes submissions that were within the scope of the policy review. It shows DWER's response to 41 issues raised in submissions. It includes advice on what stakeholders proposed to change, and where relevant, why a proposed change is not recommended.

No.	Stakeholder submission comment	DWER response
Clear	er and new definitions	
1.	Can the definition of 'associated facilities' be clarified for recreation events? How does it relate to aid stations and occupational safety and health needs, such as checkpoints, water and basic sustenance supplies for competitors?	Action – Change to policy. We have included the following in the definition for a recreation facility: 'It excludes a vehicle or pop up tent required for occupational safety and health/first aid purposes, which distributes basic supplies (such as water, snacks or first aid) or is a checkpoint for contestants. However, if it supplies meals, merchandise or alcohol or provides a recreation function then it would be considered a 'recreation facility'.'
2.	The terms 'organised', 'event' and 'facilities' are not clearly defined. Can you define how the policy applies to informal groups which have an organiser, but are unlikely to be 'under the control of a person or organisation'?	Action – Change to policy. We have clarified the definition of an 'event' and a 'recreation facility'. An organised event is defined as involving more than 25 people. This is consistent with DBCA policy. Informal groups larger than 25 people undertaking an activity are required to apply for event approval via the relevant land manager.
3.	The meaning of 'designated sites' is defined in the Appendix E Glossary and refers also to 'areas' but does not mention trails or tracks? Can the redundant word 'approved' be deleted from 'approved designated'?	Action – Change to policy. Our original definition of 'designated sites' was intended to include trails and tracks, so we have now included mention of this. The word 'approved' needs to be retained, because it is an important component of the definition.

4.	Can a definition for the terms '2012 levels' and 'September 2012 level' and 'existing' be provided?	Action – Change to policy. We have now defined September 2012 levels: 'Recreation events and facilities as approved at September 2012. To continue to be considered as 'existing', facilities and events can be maintained and upgraded but their capacity and designated use cannot be increased. It must be defined in a state government plan endorsed by the relevant land manager to show approval prior to September 2012. However, there is flexibility to be able to accept recreation that can be demonstrated to be existing approved as at September 2012 through other state government documentation and evidence. These cases will be assessed on their merits.'
5.	Can the definition of 'off-road driving' be clarified? We believe on road licenced/registered 4WD vehicles are not off-road vehicles by classification, they simply have the capacity to operate on loose surfaces off-road. Is driving on a 4WD track considered off-road driving?	Action – Change to policy. We have now defined off-road driving: 'Driving any motorised vehicle (including licenced vehicles) on tracks or roads that exist for the purpose of fire control, mining, forestry or infrastructure access/maintenance, driving through the bush (making your own track) or driving on an approved 4WD track.' The IACWG is working on a project regarding roads in PDWSAs.
6.	'Recreation' is defined within Policy 13. Can the definition be updated to include the use of trail bikes and mountain bikes?	Action – No change to policy. The definition of 'recreation' includes examples only, it is not necessary to include all recreational activity types. Trail biking and mountain biking are included within the recreation compatibility table.

7.	Can you define the additional water treatment barriers that the policy refers to?	Action – Change to policy. 'Additional barriers' are referred to in the <i>Australian drinking water guidelines</i> as 'multiple barriers'. Multiple barriers are not limited to water treatment and we have now included a definition for multiple barriers that includes examples: 'Multiple barriers: the use of more than one measure as a barrier against water quality contamination hazards. Examples of multiple barriers include: closed catchments; large reservoirs with long detention times; water treatment; use of multiple storage reservoirs; disinfection of water before and during its time in the distribution system.'
8.	Could the designation of 'recreation areas' be a way to support new recreation? Is this its intent? Could you allow new facilities to be developed where they can demonstrate no further contamination of a PDWSA, undertaken as part of a 'recreation area'	Action – Change to policy. The intent of the proposed 'recreation areas' is to recognise places where existing, approved facilities occur together within a localised area (such as where many tracks and trails occur in proximity) and are currently managed (either formally or informally), or should best be managed as one area. This will be subject to an IACWG case-by-case assessment. We have now clarified this in the policy.
	plan subject to DWER approval?	A 'recreation area' is not a tool for increasing recreation levels or types or expanding recreation facilities within PDWSAs. The creation of a 'recreation area' would recognise designated areas where specific approved recreation already occurs, such as a designated mountain bike area.
		For example, recognition of an area that is currently being managed by DBCA as a designated 'recreation area', is being considered by IACWG agencies for the network of existing approved mountain bike trails in Kalamunda.

9.	Can the policy define the capacity of the	Action – No change to policy.
	Munda Biddi Trail and Bibbulmum Track?	The capacity of these trails is variable depending on the time of year, weather, event type and other factors that will be considered by the land manager.
		The policy does explain that the capacity of these trails is shown to be exceeded if additional facilities are proposed to support an event as this demonstrates the capacity of the existing facilities has been exceeded.
		In addition, the land manager can make a decision if they believe an event to be above the capacity of these trails.
Clarif	ication or additional information needed	
10.	Can the policy explain why the Munda	Action – No change to policy.
	Biddi Trail and Bibbulmun Track are an exception within reservoir protection zones?	These are existing approved, high priority recreation facilities that were already in place prior to the release of the Policy 13 in September 2012, and as such they are recognised as existing approved trails. However, any opportunities to re-align sections of the Munda Biddi or Bibbulmun outside of RPZs are supported.
11.	Can the policy explain why sealed bitumen	Action – Change to policy.
	roads and their road reserves within PDWSAs on Crown land are not subject to the policy?	The policy now clarifies that it does not apply to 'sealed bitumen roads' and their reserves outside of reservoir protection zones because recreation undertaken on sealed roads is generally a lower risk and the recreation application system for events and facilities on these roads does not require approval from the surrounding Crown land manager. However if a recreation event or facility (including parts or sections of events or facilities, such as parking or spectator areas) is proposed outside the sealed bitumen road or road reserve boundary (the adjacent Crown land), this policy does apply and an application is required.

12.	Can population growth be recognised in the policy given demand is increasing? Recommend that a statement be placed in the policy that identifies that individual participation will be allowed to continue at 2012 levels and is expected to grow in line with population growth.	Action – No change to policy. We are aware that due to population growth the number of people recreating and/or visiting the outer catchments of PDWSAs will increase. Section 1.3 of the policy recognises this: 'Policy 13 will continue to:recognises that the number of individuals undertaking recreation activities in the outer catchment of PDWSAs is likely to increase due to population growth. However this does not mean that new or enhanced facilities or events should be developed in PDWSAs to meet this demand.'
13.	Why are September 2012 levels used as a limit for recreation in PDWSAs?	Action – No change to policy. September 2012 is the date that Policy 13, 2012 was published. This date is the earliest point following government's 2011 response to the Parliamentary Committee Report 11 that could be used as a baseline for recreation.
14.	Recommend that the policy retain the previously included principles of Leave No Trace, develop simplified specific educational material and makes a commitment towards educating recreation participants within PDWSAs of minimal impact practices like Leave No Trace.	Action – No change to policy. The policy does retain the 'Leave No Trace' principles, which are included in Appendix E – <i>Public drinking water education and awareness</i> . The policy encourages an education approach. Education also occurs as part of Water Corporation responsibilities within PDWSAs.
15.	The difference between the approval process for new proposed recreation events and facilities in section 2.5 and the compatibility tables for individuals undertaking activities requires clarification. If the compatibility table is for individuals and small non-organised groups, why are orienteering and rogaining mentioned in the table?	Action – Change to policy. The compatibility table now clarifies that for individuals or groups less than 25, participation in a compatible recreation activity does not require further approval unless the activity is proposed as an event or facility. Orienteering and rogaining are included in the compatibility table because they can also be undertaken by individuals or small informal groups.

16.	Is the policy reference to a 'government management plan' limited to state government or does it also include local government? Greater acknowledgement for strategic-level recreation planning documents should be given in the policy, particularly the Perth and Peel Mountain Bike Masterplan, which was developed in partnership with government agencies (DBCA, Department of Sport and Recreation etc.).	Action – Change to p The policy now clarif state government. To strategic recreation p supplying safe drinking Although state government or does not mean that a government agencie agencies and confirm The IACWG can contadvice on their agencies
17.	Can the policy maps define protection areas and outer catchment areas and surface water and groundwater areas? Where this is not possible due to the scale, please provide this as separate maps or as an online tool. Can the policy include a direct link to where the 2017 Perth Hills and South West map can be downloaded? Can the policy provide locations of alternative recreation areas outside PDWSAs?	Action – Change to p The policy already in A2 show protection a large scale, we cannow we have now includ map (DWER 2017), Perth to the South W QR scan code on sig We have also includ that provides public a drinking water source. The policy will inform

policy.

ifies that 'government management plan' is limited to The definition doesn't include local government and planners because they do not have responsibility for king water to the public.

ernment may provide input or fund reports developed by (non-government) strategic recreation planners, that all of the report's recommendations are supported by all es. Such support needs to be checked with the relevant rmed in writing.

onsider these matters further and will be able to provide ncy's support for specific recreation planning documents.

policy.

includes a map of PDWSAs in WA, and figures A1 and zones and outer catchment areas. However, due to the not provide the level of detail asked for.

ded a link to our Perth Hills and South West recreation which shows PDWSAs and recreation facilities from Nest. We are also considering linking to this map via a igns in PDWSAs.

ded a link to an interactive online government application mapping with locator capability, which shows public ce areas and DBCA land (see nationalmap.gov.au).

The policy will inform people that we are developing an interactive mapping tool that will enable users to locate themselves relative to PDWSA boundaries and protection zones. It can be used in recreation planning or to ensure individuals do not accidently enter a protection zone. This mapping tool will be available online at www.dwer.wa.gov.au or by contacting DWER.

18.	Can an example of a recreation management plan be attached or linked to the policy?	Action – No change to policy. This type of advice is best located in a guidance document. We will consider including this in a proposed update to one of our water quality protection notes, which could be used to guide best practice management of recreation events and facilities to help reduce water quality risks.
19.	Request clarification on the use of e-bikes in the policy. What is the difference between a motorised electric mountain bike and a motorbike?	Action – Change to policy. Electric power-assisted pedal cycles (PAPC) are now included in the compatibility table with the same compatibility as mountain bikes. They must meet Department of Transport legislation to be considered a PAPC. We have also included the following definition: 'A power-assisted pedal cycle (PAPC) is a bicycle with a motor providing assistance when the rider is pedalling. In Western Australia PAPC can be used by people aged 16 years and older on shared paths with the power engaged. To be compliant, a PAPC must meet Department of Transport legislation including that it must have an electric motor, a maximum power output of 250 watts and other requirements available online at www.transport.wa.gov.au.'
20.	Can the policy quantify and report the 2012 existing approved levels of recreation, events and facilities or identify the data sources for this information so that it can be used for policy implementation?	Action – No change to policy. The requested information is unfortunately not available in one location. Different land managers each hold their own data for events and facilities, sourced from existing management plans, operational documents, previous applications and assessment data. 2012 levels are established on a case-by-case basis as required. We do not propose to quantify the number of individuals recreating in PDWSAs as the policy recognises that this will increase with population growth. Some agencies collect recreation data that can show visitor numbers in specific locations.

21.	Request electronic links from the document to the different policy areas and specific protection plans and application forms relevant to the policy.	Action – Change to policy. We have now included link or descriptions of where to find the following documents: - DBCA recreation event application forms - DWER PDWSA drinking water source protection reports - DBCA Policy 18 - DWER recreation event application form. Administrative updates to the policy may be required from time-to-time to keep this information current.
22.	The policy requirement to 'Provide a report to show that alternative sites outside of PDWSAs have been fully considered' needs to be clear on the information required from proponents including differentiation between requirements for events and facilities. The requirement to 'employ best practice water quality protection measures' and 'incorporate drinking water education and awareness initiatives in event material' is unclear and a clarifying document or specific development of materials for activity type would assist.	Action – No change to policy. The locations and level of detail required for investigating alternative areas will vary depending on the particular application. For example, the needs of the recreation facility or event and other historical information such as existing approved facilities. DWER can request further information on the assessment of alternative sites if there is not enough information provided in the submission. Early conversations with DWER can assist in explaining what is required. Best practice measures vary depending on the proposed activity or facility. Appendix E provides is general education and awareness guidance and applicants need to tailor this information to suit their circumstances. The IACWG will consider development of a guidance document, to support Policy 13 and help with this matter.

23. Request more information on enforcement and fines within the policy.

The number of enforcement activities and education success should be identified a measure of the policy.

Non-compliance should be dealt with via education and enforcement should be the last resort.

A high level of illegal use of PDWSAs occurs and lack of enforcement drives events underground. How is this dealt with and can there be improved enforcement within PDWSAs?

Action – No change to policy.

The IACWG members all promote education and awareness before considering enforcement options. The IACWG will consider how to capture this work for public education and awareness.

Prosecution and warning letters are used on a regular basis to protect water quality and public health. The Water Corporation reports on its prosecutions to DWER. During the 2016-17 financial year, the Water Corporation issued more than 360 verbal and written warnings and more than 250 individuals were prosecuted due to illegal access or activities within PDWSAs across WA. Increased surveillance and the implementation of the *Water Services Act 2012* has assisted in this.

Updated by-laws to protect water quality are currently being developed. These by-laws will introduce increased penalties, an infringement notice system and provide for consistent by-laws in both metropolitan and country PDWSAs (with a preference for adopting metropolitan by-laws which are more modern and effective).

24.	The 15 abolished PDWSAs do not provide	Action – Change to policy.
	increased recreational value for the metropolitan population and this should be recognised in the policy.	The policy now includes clarification in regard to the 15 abolished PDWSAs, investment in planning and infrastructure will help accommodate demand for nature-based recreation and tourism experiences in these areas.
		The 2018 draft consulted policy already includes a similar statement: 'While some of these catchments may not have well developed recreational facilities, they are areas that should be considered for new recreation events and facilities.'
		There are also many areas outside of the 15 abolished PDWSAs available for recreation. In the Perth region there are large areas to the north and along the coastal plain that are available. In addition, the Darling Scarp provides large forested areas outside of PDWSAs for recreation and tourism opportunities.
		Further investigations are occurring for opportunities in abolished PDWSAs, such as Bickley Brook Catchment Area, which is in close to Perth.
		Investigation of new areas is limited by current funding, nonetheless some new and enhanced recreation has been provided in locations outside PDWSAs such as Logue Brook Dam and Lane Poole Reserve.
25.	The policy has the potential to force more	Action – Change to policy.
	usage via events onto the long trails in WA. The potential for overuse may be mitigated if the community based organisations have a say in the approval of events. Can the policy clarify what role the community based organisations like the Bibbulmun Track and Munda Biddi Trail foundations play in the implementation of Policy 13?	Given the increase in events held on these trails, land managers responsible for assessing these proposals will need to consider if the trail will be impacted.
		We have now clarified the current approvals process in the policy as follows: 'The land manager seeks input and comments from the relevant foundation for proposals on the Mundi Biddi and Bibbulmun and considers their advice in the assessment procedure.'

Requ	Requests to change the way we administer and implement the policy		
26.	Request commitment that any future or proposed reservoir/wellhead protection zones will not impact the existing approved recreation facilities including any future realignment needs.	Action – No change to policy. New PDWSAs and their associated protection zones would recognise the existing types and levels of recreation that were approved at the time the PDWSA is constituted.	
27.	The policy should allow diversions or realignments to existing approved recreation facilities, in response to hazards including bushfire damage, etc.	Action – No change to policy. This is already included: 'Proposed re-alignments or re-location of existing approved facilities should be referred to DWER for assessment. Realignments can be supported consistent with the policy where they are outside of the RPZ and/or result in a reduction of water quality risks.'	
28.	Please add the Department of Planning, Lands and Heritage (DPLH) to the list of 'usual' land manager agencies particularly if a site is unallocated Crown land (UCL) or unmanaged reserve (UMR).	Action – Change to policy. We have now included DPLH to the list of 'usual' land managers in section 2.5 Recreation proposals.	
29.	Where proposed recreational use within a PDWSA intersects a UCL or UMR parcel, under section 91 or 46 respectively of the Land Administration Act 1997, it is required that a Licence issued by DPLH under the Minister for Land's delegation.	Action – Change to policy. We have now included this requirement. We recommend that DPLH processes and guidance should also link into Policy 13, where their land is within a PDWSA.	
30.	In section 2.5 the policy advises that events or construction may need to be cancelled in response to 'extreme' bushfire risk, recommend also adding reference to 'catastrophic' risk.	Action – Change to policy. 'Catastrophic' has been included in section 2.5.	

31.	Land within PDWSAs that has extreme bushfire risk, may require clearing to meet planning and building requirements. This should be incorporated into the assessment of recreation proposals. Furthermore, some recreation events and facilities may be considered 'vulnerable' land uses in accordance with Planning in Bushfire Prone Areas.	Action – No change to policy. Policy 13 provides a tool for land managers to consider water quality protection, among the many other issues and information they need to consider. The ongoing management of bushfire risk and the potential of proposals to impact bushfires would be one of these other factors requiring consideration that rests outside of Policy 13.
32.	The Heritage of Western Australia Act 1990 requires that proposals that may affect a place included in the State Register are referred to the Heritage Council for advice. Propose inclusion into and that proponents undertaking land development activities in PDWSAs on Crown land should be made aware of their obligations under the Aboriginal Heritage Act 1972 and referred to the State's Aboriginal Heritage Due Diligence Guidelines.	Action – No change to policy. Policy 13 provides a tool for land managers to consider water quality protection, among the many other issues and information they need to consider. A risk assessment of a proposal's potential to impact Aboriginal heritage would be one of these other factors requiring consideration that rests outside of Policy 13.
33.	The Native Title Act 1993 makes provision for native title rights such as hunting and fishing. Policy 13 should reference the continuation of native title rights and note exclusions to prohibition as required under this Act. Policy 13 should acknowledge the South West Native Title Settlement, and confirm that it does not contradict or limit the application of these.	Action – No change to policy. Customary activities are not considered or dealt with the same as recreation. The protection of water quality in PDWSAs from customary activities is addressed under DWER legislation including specific by-law changes included for the South West Native Title Settlement. Please also see DBCA's Guide to Aboriginal customary activities on Parks and wildlife-managed land and waters, 2016.

34.	Policy 13 guides recreational land uses within PDWSAs, however it does not appear to integrate the terminology and management framework with PDWSA State Planning Policies or Water quality protection note (WQPN) 25: Land use compatibility tables for public drinking water source areas such as the use of protection zones/outer catchments instead of priority areas (P1/P2/P3).	Action – No change to policy. Policy 13 and WQPN 25 apply to different land management aspects. Policy 13 applies only to recreation on Crown land; whereas WQPN 25 applies to all other development proposals and land tenures in PDWSAs. So, the two use different terminology out of necessity to reflect management approaches. Priority areas do not apply in Policy 13. The term 'protection zones' collectively includes RPZs and wellhead protection zones (WHPZ). The term 'outer catchments' refers to anything outside of the protection zone.
35.	Grouping of all recreation types is not a fair assessment of risks. Recommend Policy 13 uses individual risk assessments of activity types/events/facilities.	Action – No change to policy. Policy 13 does not consider all recreation types as a single group. It separates land-based from water-based and assigns different compatibilities according to risk (such as off-road motorised recreation is a higher risk than non-motorised recreation). Individual risk assessments for all activities is however not possible due to the time, cost and current scientific limitations involved. A combination of current information and science has been employed to undertake qualitative risk assessments to guide decision making and to develop Policy 13.

Requests for new or increased recreation

Recreation occurs in public drinking water catchments elsewhere around Australia and the world, so why can't it occur in PDWSAs in WA?

Various recreation activities have been

occurring in WA PDWSAs for years and no impacts have been recorded so why should that recreation be restricted?

We believe the precautionary approach should not be used. Managed access, with increased recreation, should be utilised in PDWSAs rather than in alternative sites outside PDWSAs. The Australian drinking water guidelines supports managed access (management).

A managed access approach could limit unsanctioned trail building and illegal use and may result in reduced impacts.

Action – No change to policy.

Consumers expect safe drinking water all the time. This is best achieved through measures that maximise protection of PDWSAs using a combination of catchment protection and treatment.

A preventive risk-based/precautionary approach, is recommended in the *Australian drinking water guidelines* and implements a recommendation of the Parliamentary Committee Report 11 which said: 'The Committee recommends that all future reviews of Statewide Policy 13 should be based on the imperative of source protection and guided by the precautionary principle.'

Reliance on treatment is a second best option. If government supported more recreation in PDWSAs we would need to be prepared for higher costs to the community. This includes the public health costs of a contamination incident as well as the financial water supply cost due to the need for more water treatment to make the water safe to drink. The estimated cost of improved treatment to allow increased recreation activities is \$200–300 million per scheme, in addition to ongoing annual costs of more than \$2 million per dam.

Unsanctioned trail building and illegal activities in PDWSAs are best dealt with via education, awareness and enforcement if required. Updated by-laws to help reduce water quality impacts are currently being developed to assist in this. These by-laws will introduce increased penalties and an infringement notice system (similar to littering fines).

37.	Animal access into PDWSAs should be supported due to arguments based around pathogen differences between species such as horses/dogs/humans. Request that dogs and horses are separated in the compatibility table due to risk differences.	Action – No change to policy. Animals within PDWSAs are addressed under by-laws; this is not a policy decision. The greatest risk to water quality in a PDWSA is from pathogens from people and all domestic animals. This is because some domestic animal pathogens are known to infect people.
38.	Propose that a new recreation type (paragliding) is changed in the compatibility table to be supported in the outer catchment area of groundwater PDWSAs.	Action – No change to policy. The risks of this activity are consistent with other motorised vehicle activities so it is considered 'incompatible'. The introduction of an increased number of individuals undertaking this activity in addition to possible spectators increases the risk. The land currently used for this activity occurs within a PDWSA and is being considered for other appropriate uses. Land outside PDWSAs needs to be identified for this activity.
39.	Request that limited water contact angling with artificial lures and flies in the waterways of should be changed in the compatibility table to be supported. The decision to prohibit fishing, compared to other supported activities, should not be made at policy level.	Action – No change to policy. Water-based activities are not supported due to the high pathogen risk posed when humans are in direct contact with the water. Fishing within PDWSAs is addressed under by-laws and is not a policy decision.
40.	Request free range/off-trail bike riding is changed in the compatibility table to be supported.	Action – No change to policy. The policy does not support free-range/off-trail mountain biking as it creates trails where vegetation is damaged and results in the creation of new, unsanctioned mountain bike trails, which increases the risks to the drinking water source.

41. Off-road driving is incompatible except on designated off-road tracks or areas and the driving of licensed vehicles on 'public roads' is supported.

Therefore can existing designated trails be allocated for trail bike use?

Action – Change to policy.

Existing facilities should only be used for their approved, designated use. Extending their use for other purposes is not supported, because this would increase their capacity and may not be compatible with their existing approved use. The designation of facilities for new activities would need to go through the normal assessment process for new recreation. The policy now explains that both the 'capacity' and 'designated use' must remain the same for recreation facilities.

Table 2 - Out of scope matters raised in Policy 13 consultation submissions

These matters are not proposed to be dealt with in this current review as they relate to broader policy, legislation and operational procedures that were outside of the scope of this policy review (which did not include reconsidering increased recreation in PDWSAs). They have however been captured for future consideration by DWER or other government agencies or members of the IACWG.

No.	Stakeholder submission comment	DWER response
Clar	ifications, better communication and ques	tions on policy implementation
1.	What is the difference between 'off-road driving' and 'rallying'? Is rallying compatible on existing designated tracks	'Rallying' describes a race and is always considered an event. It may be either on-road or off-road. An organised race event conducted 'off-road' would be considered a rally.
	and areas?	Only existing approved rallying events are supported in PDWSAs.
2.	The policy outlines how it sits within a context of other agencies' and DWER's policies. As this is complex can you consult recreation groups in the development of these processes and identify how to allow for consultation with recreation groups in policy development	All of our processes and policy are consulted closely with stakeholders and we are open to meet to discuss these issues. When these government policies are reviewed they are consulted with the public and key stakeholders. This typically involves a public consultation period. We suggest that stakeholders maintain contact with the Department of Local
	and review?	Government, Sport and Cultural Industries (Sport and Recreation office) as an information channel for any relevant government consultations.
3.	Why doesn't the policy describe the new \$300 million water treatment plant in Mundaring and explain that there is a decreasing dependence upon surface runoff water?	The treatment plant in Mundaring was a response to poor water quality due to many factors. A modern best practice drinking water protection program does not rely on treatment to make water safe to drink. To do so would increase risks to water quality and public health and significantly increase costs of water supply to consumers.
		While there is a decreasing dependence on surface water run off as a primary source, run off and dam storage continues to be essential to:
		 Provide a portion of the total water supply (there is insufficient desalination and groundwater to make up full supply needs).

		 Save water in slightly wetter years as a buffer supply for subsequent dry years when inflows are low. In late 2018 the Perth Metropolitan dams were reported to be at their highest levels in eight years. Store water produced by desalination plants (and sometimes by groundwater pumping) to ensure sufficient supplies to make up demand in hotter months. Reliance on climate independent water sources (desalinisation and recycling) to supply drinking water is increasing and these alternative sources are up to three times more expensive than natural sources. Therefore it is essential to Perth's scheme water customers that we preserve the highest quality, lowest cost natural freshwater sources (dams and aquifers).
4.	Please communicate with recreation groups on 'understanding how recreation activities occur and can be managed to minimise water quality impacts' and the 'delivery of education' to support recreation within the PDWSAs.	The IACWG members work closely with stakeholders and will meet and communicate on these issues with stakeholders. Under Policy 13, discussion with proponents about recreation needs and water quality protection occurs as part of an event or facility proposal. This results in partnerships and education on these issues. Stakeholders can find various recreation education and location information from the IACWG member websites as it is important that stakeholders take responsibility for understanding how to minimise the water quality impacts of recreation.
5.	The Metropolitan Water Supply Sewerage and Drainage Act 1909 defines a catchment area as 'all land over, through, or under which any water flows, runs, or percolates directly or indirectly into any reservoir erected or used in connection with any water supply'. We believe in many areas of a PDWSA water does not flow into the reservoir. Can you explain?	PDWSA boundaries are determined by DWER and include hydrological and hydrogeological assessments and modelling of where water flows, runs, or percolates directly or indirectly into any reservoir. Both the surface and groundwater flows are considered in this assessment. This process occurs as part of the development of drinking water source protection reports. These reports are available online at www.dwer.wa.gov.au . When these reports are updated, new data is considered and, if required, boundary changes are made.

6.	The 2011 government's response to the Parliamentary report does not identify 2012 levels of participation as a benchmark and therefore we believe this should not be a part of the policy review.	Government's response to the Parliamentary report planned for this matter to be considered and decided upon within the 2012 review process for Policy 13. Government's response stated that 'These matters will be considered as part of the review process for Policy 13'. The government approved Policy 13, 2012, agreed with the Standing Committee advice that to protect water quality and public health recreation within PDWSAs should be maintained at September 2012 levels.	
7.	We believe the implementation of Policy 13 2012 has concentrated on restricting recreation rather than maintaining it at 2012 levels.	Policy 13, 2012 is focused on maintaining and not increasing September 2012 levels of recreation by supporting existing approved land-based recreation in the outer catchment, and promoting new and enhanced recreation outside PDWSAs. The policy recognises that the levels of individuals recreating in PDWSAs will increase consistent with population growth.	
Que	Questions regarding water quality risks		
8.	What are the treatment types referred to in Table 6 of the draft updated Policy 13 document? What types of water treatment technology are currently being used? Are more modern and cheaper water treatment options available now to allow Policy 13 to be relaxed and rely on treatment to protect water quality and public health?	Drinking water source protection reports are written for all PDWSAs in WA. These reports include the location of each PDWSA, its boundary, priority areas, protection zones, water quality risks and solutions – they also describe the catchment protection measures and treatment technology applied within each PDWSA. The Water Corporation considers a range of appropriate treatment options for each source in the delivery of safe drinking water. It is not cost effective to rely on treatment alone to make water safe to drink due to the lower risk and cost savings achieved through a combination of catchment protection and treatment. Water treatment for low quality water remains a very expensive option. An increased reliance on treatment would however occur when high quality water from protected PDWSAs is no longer available.	
9.	Why is recreation different to other activities such as mining or forestry? If water treatment can deal with the arguably higher risks of these activities	These activities are subject to a state administrative agreement or similar, and have strict monitoring and compliance controls and conditions put on them for the protection of water quality and public health. They are also subject to much higher penalties and consequences.	

	and illegal recreation, could it deal with managed recreation (such as allowing more managed access)?	This highly regulatory approach would not work for recreation, given the large variety of recreation types, locations and the number of people.
10.	Can you explain why some PDWSAs that are sole supplies, have raw water quality which exceeds the <i>Australian Drinking Water Guidelines</i> for several parameters (including faecal matter) and are still used as drinking water sources?	This is not a typical situation. Where the PDWSA risks are high, the treatment mitigation measures applied are increased to ensure people's health is protected. If the PDWSA risks remain high, a replacement source will be considered. The water supplied to the public is managed to ensure it meets <i>Australian drinking water guidelines</i> to protect our health.
11.	How does drone flying affects water quality?	'Drone flying' has been listed as supported in the policy consistent with 'walking' unless it is in the RPZ where public access is prohibited (except on public roads). It is the increased numbers of individuals/vehicles/facilities/services associated with this activity that introduces increased water quality risks. There are also other government agency regulations for this activity that need to be followed.
12.	How often does illness, hospitalisation and death occur in Australia due to drinking water quality?	Australia has on the whole been highly successful in managing the risks to public health. It is important to appreciate that the key criteria for risk assessment is not how often something happens (or does not happen), but a combination of how often and what are the consequences if something happened. For drinking water, illness, hospitalisation and death mean even something that has a low probability/frequency can be a high risk. Information about drinking water incidents can be found in <i>Safe Drinking Water, Lessons from Recent Outbreaks in Affluent Nations</i> , Steve E. Hrudey and Elizabeth J. Hrudey, 2004, IWA Publishing, London. See also the Havelock North New Zealand 2016 tragedy for an example of a first world public health incident due to pathogen contamination www.dia.govt.nz/Government-Inquiry-into-Havelock-North-Drinking-Water-ReportPart-1Overview.

Issu	es covered under Policy 13 recreation ass	essment procedure
13.	Request a proposed link trail between Kalamunda town and approved Kalamunda mountain bike trails be given a high priority when presented to the IACWG for assessment.	The IACWG is aware that this proposal is being developed and when it is submitted it will be considered under the recreation assessment procedure outlined in Policy 13.
14.	Could recreation applications and assessment of proposals be made available to the public and in conjunction with a visible online application tracking system?	DWER, DBCA and the Water Corporation do not currently have the capability to track recreation application processes online. This is something we can consider in the future when planning for system updates.
15.	New proposals within strategic plans that have no alternative locations still face significant hurdles prior to approval.	Strategically supported proposals will be assessed in the same way as other proposals considered under Policy 13. The existence of a supported government position will be considered in the assessment. The checks and balances put in place benefit everyone by ensuring decisions are fair, equitable and do not pose a significant public health risk.
16.	Request the current unsanctioned mountain bike trails in Kalamunda be retained, and trails close to Perth should be a development priority.	Policy 13 outlines the application and assessment process for new proposals which includes the assessment of unsanctioned trails.
17.	Request that DWER and DBCA work closely with stakeholders to achieve mutually beneficial outcomes.	The IACWG members (including DWER and DBCA) work closely with stakeholders and will meet with stakeholders and proponents to discuss beneficial outcomes.
18.	Recommend removing marron from some PDWSAs and relocating them to other dams to reduce illegal marroning. If illegal activities are reduced within PDWSAs, can increased recreation be supported in PDWSAs?	A proposal for relocating marron from a PDWSA has been assessed in the past and was not supported. The proposal was inconsistent with Policy 13 and both the Country Areas Water Supply by-laws 1957 and the Metropolitan Water Supply, Sewerage and Drainage By-laws 1981. Illegal activities are best addressed via education, awareness and enforcement, if appropriate.

Trai	l bike (motorised bike) riding	
19.	The Perth Hills Trails Masterplan 2013 identified four trail bike areas. Can these be recognised in Policy 13? We believe a whole of government assessment on alternative areas for offroad recreation is needed. No new trail bikes areas have been designated, supported or funded by government in the 15 abolished PDWSA or in areas outside PDWSAs.	Policy 13 outlines the application and assessment process that can be used for new proposed designated areas. These four trail bike areas will be considered through that process. Consideration by the IACWG to achieve a whole of government response would be one part of that process. The IACWG will be able to provide advice if there are any new supported or designated trail bike areas outside PDWSAs.
20.	Some historical trail bike events have not been permitted around Logue brook due to proposed strip mining.	Approval for activities at Logue Brook Dam is subject to the relevant land manager. Logue Brook is not a PDWSA and is not subject to Policy 13.
21.	Trail bike riding requires large areas of land, physically separated from residents while still close to population centres, with a broad topographical mix and aesthetics and a surface durability typical of the Perth Scarp.	The specific needs of trail bike riding is understood and will be considered when any proposed designated trail bike areas are assessed.
22.	Request mandatory off-road vehicle registration for off-road trail bikes, as recommended in the State Trail Bike Strategy of 2008. Propose legislation to restrict the sale of some types of off-road vehicles, unless licensed and insured like all other vehicles. DWER and IACWG should pursue additional, more effective measures to	Illegal activities are dealt with via education, awareness and if required, enforcement. This is a matter that the IACWG will consider further. Policy 13 is not the only policy or legislation that constrains where trail bikes can be used. Gazettal of off-road vehicle areas, legislation and registration for trail bikes are dealt with under the <i>Control of Vehicles (Off-road areas) Act 1978</i> . Prosecution and warning letters are used on a regular basis to protect water quality and public health. During the 2016-17 financial year, the Water

specifically address the issue of trail bike and quad bike riding. More weekend policing of illegal off-road use is also needed.

Policy 13 constraints increase the burden on local government authorities and residents who are dealing with increasing pressure for trail bike areas. Corporation issued more than 350 verbal and written warnings and more than 250 individuals were prosecuted due to illegal access or activities within PDWSAs across WA.

Increased surveillance and the implementation of the *Water Services Act* 2012 has assisted in this.

Updated by-laws to protect water quality are currently being developed. These by-laws will introduce increased penalties, an infringement notice system (similar to littering fines) and provide for consistent by-laws in both metropolitan and country PDWSAs (with a preference for adopting metropolitan by-laws which are more modern and effective).

There have been historic motorised competitive trail bike events held in PDWSAs and there appears to be no plans to resurrect these events.

Given this situation could ongoing trail bike use at lower levels than historic events be supported?

Motorised trail bike riding is not compatible in PDWSAs unless it is within approved designated areas.

Requests for increased recreation or access within PDWSAs

24. Can catchments such as Middle Helena be assessed on a case by case basis and dealt with differently due to bad water quality, intensive land uses and construction of the new water treatment plant?

Does the decreasing reliance on surface water and increase of groundwater, desalination and recreation make a difference to Policy 13?

The water quality risks that exist in Middle Helena Catchment Area are addressed through catchment protection and the additional treatment plant. To enable additional recreation in this area would require additional investment in treatment.

DWER recognises that reliance on climate independent water sources (desalinisation and recycling) to supply drinking water is increasing and these alternative sources are up to three times more expensive than natural sources. Therefore we aim to preserve the highest quality, lowest cost natural freshwater sources. Some dams are also used to store water produced by desalination plants (and sometimes groundwater). Therefore decreasing reliance has not made a difference to the policy, we deliver a safe drinking water to consumers by applying best practice water quality protection

		approaches and we apply the same approach to all our PDWSAs to ensure a consistent outcome for all consumers.
25.	Can you allow improved recreation facilities to be developed where they can demonstrate they would prevent further contamination of a PDWSA?	The policy already allows improvements to recreation facilities where there is not an increased capacity or use and improvements to prevent water quality contamination are always encouraged where possible. The policy explains this by saying, 'existing, approved recreation facilities to be maintained as at September 2012, noting that these facilities can be upgraded provided their capacity and designated use remains the same (upgrades may be for environmental, amenity, public safety or public health reasons).' The policy does not support the expansion of facilities in PDWSAs and seeks to focus the effort and funds on recreation outside PDWSAs.
26.	Can recreation groups who educate and undertake minimal impact practices be rewarded with increased access?	DWER encourages all existing approved recreation to be undertaken with education and minimal impact practices. This is a condition often required by the Water Corporation for events. This is standard for all activities within PDWSAs. Rewarding practice we already recommend would undermine the policy intent and aim of promoting new recreation outside PDWSAs.
27.	Can passive water and land based recreation be allowed on drinking water reservoirs or within RPZs?	Allowing water-based recreation or access within RPZs would significantly increase the public health risks due to potential pathogen contamination. It would also mean that expensive treatment would be required.
28.	How will limiting events and facilities to 2012 levels, better protect PDWSAs? Could maintaining September 2012 levels cause more illegal activities and issues? There should be a proactive approach, identifying resources and opportunities to educate increased users to utilise minimal impact practices.	By limiting events and facilities at September 2012 levels in PDWSAs, we are promoting new and enhanced recreation outside PDWSAs and maximising the protection of our limited PDWSAs to protect people's health. Existing approved recreation needs to occur in conjunction with education and with best management practices. The IACWG considers recreation matters inside and outside of PDWSAs to deal with increasing recreation needs. The group will continue to engage with stakeholders. The IACWG is planning to focus more on prioritising new recreation development outside PDWSAs. This may occur through a number of mechanisms including the development of a strategic recreation plan.

		Illegal activities are best managed by education, awareness, surveillance and as a last resort, enforcement.
29.	Considering terrorism, large catchment areas, a limited budget and the public's ability and willingness, could increasing public access for low risk activities, be used to report, monitor or enforce suspicious activity, illegal activities or pollution? Banning low risk users from an area, such as within RPZs, increases rubbish dumping and antisocial and illegal activities.	People undertaking recreation can report pollution and illegal use via existing notification systems available via the Water Corporation, DBCA and DWER. It is not appropriate to increase public recreation access to help catch illegal activities. Rubbish dumping, antisocial behaviour and illegal activities are best addressed via education, awareness and if appropriate enforcement measures (such as for repeat offenders or significant pollution incidents). Prosecution and warning letters are used on a regular basis to protect water quality and public health. The Water Corporation reports on its prosecutions to DWER. During the 2016–17 financial year, the Water Corporation issued more than 360 verbal and written warnings and more than 250 individuals were prosecuted due to illegal access or activities within PDWSAs across WA.
30.	The recreation compatibility table says 'recreation types in these compatibility tables are subject to review.' Does this mean new recreation activities could be supported if managed correctly and with adoption of minimal impact principles?	The compatibility table in the policy can be reviewed for the purpose of adding recreation activities that are not already covered (they may be compatible or not compatible). For example, trail running is a new activity not previously included in the table.
Req	uests for further investigations or scientifi	c studies to be undertaken
31.	Relevant new research findings, new technology, or other developments or changes in the environment that have occurred since the Parliamentary Committee Report 11, 2010 have not been explored or considered in this review.	The IACWG, comprised of the Water Corporation and departments of Health; Local Government, Sport and Cultural Industries; Water and Environmental Regulation; and Biodiversity, Conservation and Attractions, considered if there was new information or science that would need to be considered in the scope of the 2018 review. Their collective experience across recreation and water led to a decision that the 2018 review did not need to reconsider these matters.

		If new information or science does become available, it will be considered by the IACWG and changes to Policy 13 can be considered at that time.
32.	What is the basis or scientific evidence for the distance of 2km being used for RPZs?	A RPZ is a barrier that protects the quality of water in and around dams/reservoirs. Water is then abstracted for further treatment and distribution to consumers. The 2km distance is a legislative (under the <i>Metropolitan Water Supply</i> ,
		Sewerage and Drainage Act) and policy based buffer set by government. This distance is typical of modern water quality risk mitigation measures. It is applied throughout WA and has proven to be an effective barrier.
33.	The Bibbulmun Track passes within the Mundaring RPZ and is highly used. Could this provide a case study for the presence of pathogens in streams which are crossed by the track - compared to those that do not? The data should be considered in the assessment of the appropriateness of the 2km RPZ distance; access restrictions within the RPZs; and camping being restricted to designated sites in the outer catchments.	More data is already being collected in PDWSAs than ever before in order to ensure the water quality and public health protection measures we use work, and to manage the risks from the currently supported level of activity. WA is in the enviable position of being able to avoid risks due to the limited amount of development within PDWSAs (especially in the Perth Hills). Best practice assessment worldwide tells us this is the right mechanism, with some countries buying back large areas of land to provide PDWSAs. In WA most of our PDWSAs are still Crown land so we are in a good place to keep them safe from water quality contamination risks.
34.	Do natural filtration processes in vegetated creek lines act as a filter to reduce contamination? Have there been any scientific studies done on minimum distances of filtration along naturally vegetated creek lines?	Natural filtration through vegetated creek lines can act to filter contamination but it cannot be relied upon for the delivery of safe drinking water. Given the public health consequences of contaminated drinking water are so high, we cannot rely upon vegetation filters.
35.	Will you consider a 12-month fishing trial in one PDWSA dam?	The information already available about the risk of water based recreation is significant, especially the potential pathogen risks.

	This will provide evidence into the impacts and benefits of allowing recreation in PDWSAs.	A fishing trial is not consistent with existing legislation, policy and what we already know about water quality risks in PDWSAs. Fishing can occur in various dams around WA, please see the Department Primary Industries and Regional Development, Fisheries site for further information, www.fish.wa.gov.au.				
36.	Has there been any scientific follow up on how the current management regime is affecting the water quality compared to previous data? Has water quality data been assessed in catchments with high levels of illegal recreation?	Existing data already shows the consistent water quality achieved in protected catchments compared to unprotected catchments. We will contin to apply a world's best practice, preventive risk based, and multiple barrier approach as recommended in the <i>Australian drinking water guidelines</i> .				
Requ	Requests regarding DWER management or documents outside of Policy 13					
37.	DWER should consider updating and rationalising the range of supporting water guidelines related to Policy 13 and/or merging them into the policy.	Supporting guidelines for Policy 13, including the recreation application form and relevant guidance documents will be updated by DWER in consultation with the IACWG.				
38.	Request the DWER Perth Hills and South West recreation map 2017 is updated to show current and proposed areas for mining and other commercial operations (such as logging). Can the map be made available online with layers to show land use based on recreation, land tenure and base ownership of land such as freehold land?	This suggestion will be considered for future map updates. There is an interactive online government map, National Map (available at nationalmap.gov.au/), that provides the public with access to various information layers, including; state forests, national parks, mining, forestry reserves and PDWSAs. The National Map layer titled <i>Tenure of Australia's forests (2013)</i> is a continental dataset of tenure classified into national forest tenure classes: multiple use public forest, nature conservation reserves, other Crown land, leasehold, private freehold and unresolved tenure and can provide the requested information.				

		For further information or questions regarding the National Map, email data@digital.gov.au or you can click the Help and FAQs buttons on the website for specific instructions. We are developing an interactive mapping tool that will show your location relative to PDWSA boundaries and protection zones. It can be used in recreation planning or to ensure individuals do not accidently enter a protection zone. This mapping tool will be available online at www.dwer.wa.gov.au or by contacting us.
39.	Exclusion on freehold land is confusing as it is difficult for the public to distinguish between Crown and freehold land. Freehold land rarely has its boundaries marked or fenced and there no other visible measures such as signs in place. Request assistance and facilitation to help users find land use and tenure information.	Freehold land owners are generally responsible for their own land management. For freehold land in PDWSAs, WQPN 25: Land use compatibility tables for public drinking water source areas applies. DWER would recommend Policy 13 is considered as well as other policy and legislation that protect PDWSAs. If a risk is unacceptably high the DWER and Water Corporation may purchase land through negotiations with the land owner. For proposed recreation events, land ownership boundaries should be identified as part of the event planning and application process. Information showing state forest and national park boundaries is available on an interactive online government application that provides the public with access to various information layers, including mining, forestry reserves, private freehold, and public drinking water source areas. Please see; nationalmap.gov.au/. The IACWG works closely with stakeholders and will meet with them to help with these issues.
40.	Can the need for each PDWSA be assessed on an ongoing basis so that additional PDWSAs close to Perth could be abolished and made available for increased recreation?	Since 2012, 15 PDWSAs have been abolished (or had all drinking water by-laws removed) and these areas can now be used for increased recreation, tourism and customary activities. The PDWSA assessment process is an ongoing process that is triggered by formal Water Corporation advice to DWER that a source is no longer required – or that a new source is required.

41. Is DWER responsible for or play a role in driving recreation development outside PDWSAs, including funding and facilitation?

The policy should prioritise the identification and development of recreation activities outside PDWSAs and develop a strategic education campaign to support movement to these sites.

One measure of the effectiveness of Policy 13 should be the amount of recreational facilities delivered in these alternative locations.

We believe there is no funding available for new and suitable recreation facilities outside PDWSAs.

DWER will assist in the development of recreation areas and facilities through the IACWG within which recreation, public health and water issues are well represented.

The IACWG, looks at funding available for development outside PDWSAs. Many existing recreation locations are shown on the DWER 2017 Perth Hills and South West recreation map, which is available at www.dwer.wa.gov.au. The DBCA has a large online system which identifies recreation facilities (such as camp sites) statewide, which is available at parks.dpaw.wa.gov.au. Improvements have been made in some locations, such as within Wellington Dam, Lane Poole Reserve and Logue Brook Dam.

Requests for the IACWG

The IACWG is comprised of the Water Corporation and departments of; Health; Local Government, Sport and Cultural Industries; Water and Environmental Regulation; and Biodiversity, Conservation and Attractions.

42. Request the public release of information or the whole report commissioned by an IACWG agency on recreation opportunities within abolished PDWSAs to aid understanding the suitability of alternative sites.

The IACWG will consider this request.

A report is currently being prepared for the IACWG on the assessment of opportunities within the abolished Bickley Dam Catchment Area, which is within close locality to Perth.

43. Request further information about IACWG and meeting minutes, decisions and reports. Could an annual report or regular updates be produced and published and a

The IACWG will consider these matters as part of their ongoing work. The group will consider reporting or publication options. Consideration is also being given to development of a strategic recreation plan to address issues beyond the scope of Policy 13.

community representative sit on the IACWG?

Water Corporation operational questions

How much of the desalination water is being stored in PDWSAs dams?

Does desalination storage in dams' waste water and money through the evaporation of the large dam surface areas?

Why does storing desalinated water in reservoirs pose less of a risk than storing the water in the aquifer and which catchments are used to store this water?

While there is a decreasing dependence on surface water run off as a primary source, run off and dam storage continues to be essential to:

- Provide a portion of the total water supply (there is insufficient desalination of groundwater to make up full supply needs).
- Save water in slightly wetter years as a buffer supply for subsequent dry years when inflows are low.
- Store water produced by desalination plants (and sometimes by groundwater pumping) to ensure sufficient supplies to make up demand in hotter months.

The Water Corporation includes some information regarding these matters on their website: 'Traditionally, our dams have been used as catchments for rainfall to supply water throughout WA – but as we get less and less rain, our dams are experiencing less and less inflow. As we respond to the impact of climate change, we are refocusing our efforts to find a variety of sustainable solutions for the future. While dams continue to play an important role in WA's water supply, they aren't a secure solution when we look to the future. We're focused on developing water sources that aren't dependent on rainfall, such as desalination, groundwater replenishment and water recycling.

Developing new water sources alone isn't enough though, the whole community – residents and businesses alike – need to work to reduce our water use and be efficient in our water use whenever and wherever we can. You can learn more about our long term plan to secure our water future here.'

dwer.wa.gov.au