



Form 4: New Work Item Proposal

Circulation date: 25/10/2017 Closing date for voting: 17/01/2018	Reference number: Click here to enter text. (to be given by Central Secretariat)
Proposer (e.g. ISO member body or A liaison organization) Standards Australia	ISO/TC Click here to enter text. /SC Click here to enter text. <input checked="" type="checkbox"/> Proposal for a new PC
Secretariat Standards Australia	N Click here to enter text.

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, an organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

IMPORTANT NOTE: Proposals without adequate justification risk rejection or referral to originator.

Guidelines for proposing and justifying a new work item are contained [in Annex C of the ISO/IEC Directives, Part 1](#).

The proposer has considered the guidance given in the Annex C during the preparation of the NWIP.

Proposal (to be completed by the proposer)

Title of the proposed deliverable. English title: Water efficient products – Banding French title (if available): Click here to enter text. <i>(In the case of an amendment, revision or a new part of an existing document, show the reference number and current title)</i>
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Scope of the proposed deliverable.

To develop an international standard for Water Efficient Products – Test Requirements, Water Efficiency Banding to indicate water efficiency of water-using fittings and appliances, for consumer labelling and other purposes, based on relevant standards and requirements from Australia and supporting countries and other ISO members' national standards.

The scope of the ISO standard will cover the following:

- Water efficiency bandings for the specified plumbing products and appliances.
- Key test requirements for individual plumbing products and appliances and determination to derive a water efficiency banding

The ISO band classification table can be added to each country's own water efficiency label design.

Purpose and justification of the proposal*

The Global Developments

Water is necessary for human life and public health. It is an essential resource in the production of goods and services, including food, energy and manufacturing, and is a critical requirement for functional ecosystems. However, 1.7 billion people currently live in river basins where water use exceeds recharge. Changing populations, new patterns of water use, increasing rainfall variability and pollution have led to projections that the world may face a 40% shortfall in water availability by 2030, affecting at least 1.8 billion people. In Asia alone, the United Nations (UN) estimates that between 2010 and 2025, 700 million people will be added to the growing numbers in Asian cities requiring municipal water services (Source: Report of the Secretary-General, "Progress towards the Sustainable Development Goals", [E/2017/66](#))

How this fits with the United Nations

The United Nations Division for Sustainable Development seeks to provide leadership and catalyze action in promoting and coordinating implementation of internationally agreed development goals, including the seventeen Sustainable Development Goals (SDGs). Among other mandates, it hosts the secretariat for the High-level Political Forum on Sustainable Development (HLPF), the central platform within the United Nations system for the follow-up and review of the 2030 Agenda for Sustainable Development, adopted by Heads of State and Governments in September 2015. The 2030 Agenda is a new plan of action for people, planet and prosperity, with 17 SDGs and 169 associated targets at its core (Source: UN Website, <http://www.un.org/sustainabledevelopment/development-agenda/>).

Sustainable Development Goal 6 (SDG6) "Ensure availability and sustainable management of water and sanitation for all", states that access to safe water and sanitation and sound management of freshwater ecosystems are essential to human health and to environmental sustainability and economic prosperity (Source: Report of the Secretary-General, "Progress towards the Sustainable Development Goals", [E/2017/66](#), <https://sustainabledevelopment.un.org/sdg6>). Targets include:

- By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated

wastewater and substantially increasing recycling and safe reuse globally

- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management

Source: Report of the Secretary-General, "Progress towards the Sustainable Development Goals", [E/2016/75](#)

The UN and World Bank High Level Panel on Water was convened in 2016 to provide the leadership required to champion a comprehensive, inclusive and collaborative way of developing and managing water resources, and improving water and sanitation related services. The Panel is implementing an Action Plan through specific initiatives, including a Water Use Efficiency Initiative led by Australia. The Roadmap for this initiative was published in June 2017 and sets out a path to implement five sectoral measures to provide practical tools to support countries, sub-national bodies, enterprises and households to improve their water use efficiency, taking into account their individual circumstances.

One of the sectoral measures in the Water Use Efficiency Initiative Roadmap targets municipal and household water users through water efficiency labelling. There is considerable potential to improve water use efficiency by households if straightforward technological changes are made to domestic fixtures and fittings. The replacement of inefficient taps, toilets, showerheads, washing machines, and dishwashers with more efficient models can have significant effects on water consumption in the home, reducing per capita consumption significantly.

A number of countries around the world have water efficiency labelling requirements which empower consumers to make choices favoring more water efficient fixtures and appliances. This leads to market transformation, as industry better understands the costs and benefits associated with efficiency savings. It is driving innovation and resulting in a steady improvement in the efficiency of technology across a range of industry sectors. Labelling also offers businesses a platform to communicate their commitment to corporate social responsibility, especially in industries that traditionally have high water use.

Regional Snapshot – What’s already been done?

Various countries who support this initiative in the APAC region have developed their own water efficiency labelling schemes with varying success and structure. Below gives both national context and response to water management within these economies:

The Australian Context

Australia is a dry continent with highly variable water resources. In 1994, Australian state and territory governments committed to a framework of water reform to address issues of over-allocation and pressure on existing supplies. Water reform continued with the 2004 National Water Initiative, in which all jurisdictions committed to a range of principles and actions aimed at increasing the efficiency of Australia’s water use and providing greater certainty for investment.

The Australian Response

Australia has become recognized as a leader in water management, with decades of experience in water reform such as establishing secure tradable water rights separate to land rights, enacting basin-scale planning, addressing water pricing and introducing management tools.

The Water Efficiency Labelling and Standards scheme (WELS) addressed a National Water Initiative commitment to better manage urban water demand. The stated objectives of the WELS scheme are to:

- Conserve water supplies by reducing water consumption
- Provide information for purchasers of water-use and water-saving products
- Promote the adoption of efficient and effective water-use and water-saving technologies

WELS requires specified water-using products to be registered and labelled with accurate, easily understood water use information so that consumers can make informed purchasing decisions.

The reduction in domestic water use reduces costs to consumers, leaves more water available for other uses such as agriculture or manufacturing, and allows communities to reduce or postpone investment in water infrastructure such as dams or desalination plants.

Experience in Australia is that when household products such as showers, taps, toilets and clothes washing machines are labelled with their water efficiency at the point of sale, consumers use that information to choose more efficient products. This reduces household water consumption and savings increase over time as more efficient products replace less efficient ones across a community. Water efficiency can also be used by governments to set minimum performance standards, further reducing demand.

Effectiveness of water efficiency labelling, underpinned by an Australian standard

WELS commenced in Australia in 2005 and is subject to a five-yearly independent review. The 2015 review found that the Australia's WELS scheme was appropriate, highly effective, and largely efficient and cost-effective in meeting its objectives, delivering water savings at far lower cost than alternative water supply augmentation measures. It found that WELS provides effective and valued consumer information at extremely low marginal costs, avoids regulatory and administrative duplication, and drives technological development and improvement.

Market research published in 2014 found that 87% of consumers recognised the water rating label, 83% believed the scheme was 'very' or 'quite' credible, and over half used the water rating labels in making purchasing decisions. (Source: Water rating, Quantum Market Research paper, <http://www.waterrating.gov.au/sitecollectionimages/resources/c679f9ae-3045-4c0c-9b1c-9c1b81f2036b/files/wels-scheme-effectiveness-survey-findings.pdf>)

An evaluation of the environmental effects of Australia's WELS scheme, conducted in 2015 by the University of Technology Sydney, estimated annual water savings from WELS of 70 billion litres in 2013, rising to 147 billion litres in 2021 and 204 billion litres in 2030. Australia's population in 2013 was 23 million people, so the per capita savings was over 3000 litres per person. Note that one billion litres is enough water to fill approximately 444 Olympic swimming pools, and the water saved is high quality potable water.

The evaluation found the greatest savings were from more efficient showers (35%), taps (35%) and clothes washing machines (19%). Efficient toilets save substantial water but more efficient toilets were already mandatory in Australia so the water savings were not attributed to WELS.

An additional benefit identified by the evaluation was in energy savings, as less energy was required to heat, pump and treat water. In Australia this is expected to reduce greenhouse gas emissions between 2005 and 2030 by over 46 million tonnes of carbon dioxide equivalents. Australian households also reduced utility

bills by an estimated total \$520 million AUD in 2013, rising to over \$2 billion AUD in 2030.

The table below summarises the estimated savings attributed to the WELS scheme in the 2015 Evaluation of the Environmental Effects of Australia’s WELS Scheme, conducted by the University of Technology, Sydney:

	2013	2021	2030
<i>Annual water savings (GL/year)</i>	70	147	204
<i>Cumulative GHG reduction (MT CO₂-e)</i>	5.5	20.4	46.4
<i>Annual household utility bill savings (\$m/year)</i>	520	1390	2063

Note that:

- A GL is one billion litres – one GL is the volume of water in approximately 444 Olympic swimming pools. As an additional means of comparison, the population of Australia in 2013 was 23 million people, so 70 billion litres represents a savings of over 3000 litres per person in 2013.
- The study found the greatest savings were from more efficient showers (35%), taps (35%) and clothes washing machines (19%). Efficient toilets save a lot of water but more efficient toilets were already mandatory in Australia so the water savings were not attributed to WELS.
- The reduction in greenhouse gas (GHG) emissions, expressed in millions of tonnes of carbon dioxide equivalents, are due mainly to reduced energy used to heat water.
- The savings in household utility bills is from savings of both water and energy. Figures are for all households in Australia combined.

The Singapore Context

PUB, the national water agency in Singapore, adopts a holistic approach to Integrated Water Resources Management (IWRM) through management of the entire water loop, from sourcing to the collection, purification and supply of drinking water, to the treatment of used water to reclaim high grade water or NEWater, as well as the drainage of storm water. To ensure a diversified and sustainable supply of water, PUB has developed what is known as the Four National Taps. These are four sources of supply, namely local catchment water, imported water, NEWater and desalinated water.

The Singapore Response

Managing water demand is a vital part of an equation to ensure a sustainable supply of water. PUB, the national water agency, have deployed a multi-pronged approach: Pricing water correctly to reflect its scarcity value; mandating water efficiency standards, and encouraging water conservation habits. Over the years, PUB has mandated various measures to ensure households and industries to use only what they need. These measures include controlling flow rates for taps and mixers as well as flushing capacity for cisterns and urinal.

The Mandatory Water Efficiency Labelling Scheme (MWELS) was introduced in 2009 to help consumers make informed choices when buying water fittings and appliances. This scheme also encourages suppliers to import more water efficient products. Under this scheme, products are labelled according to their water

efficiency which ranges from 0-tick to 3-tick. Items under MWELS include water fittings such as taps and mixers (basin, sink/bib and shower), dual-flush low capacity flushing cisterns (LCFCs), urinal flush valves and waterless urinals. In addition, suppliers are also encouraged to label the water efficiency of their showerheads under the Voluntary Water Efficiency Labelling Scheme (VWELS). MWELS was extended to cover clothes washing machines for household use in 2011

To complement MWELS, minimum water efficiency standards were imposed on water fittings in 2009. All new developments and existing premises undergoing renovation are required to install water fittings with at least a “1-tick” water efficiency rating. To complete the 2009 change, PUB has introduced minimum water efficiency standards of 1-tick for taps/mixers from 1 Apr 2017 (i.e. only taps/mixers with at least a 1-tick rating are allowed to be sold/supplied in Singapore).

The minimum water efficiency standard for clothes washing machines was raised from 1-tick to 2-ticks (i.e. 2-ticks and 3-ticks only) in October 2015. On Singapore consumers’ level of acceptance, a market survey commissioned by PUB in 2016 showed that the sales figure of 3-ticks WELS rated washing machines has increased from 37% in 2011 to 88% in Q1 2016. This huge jump in sales figure signifies a shift in consumers’ behavior and their increased preference in water efficient products. In light of more water efficient washing machines in the market, PUB introduced a 4-tick rating within the 3-tick rating group to allow for finer differentiation of water efficient clothes washing machines in 1 Apr 2017.

Over the years, PUB has made good progress in water efficiency. In 2015, we used 151 litres per person per day, down from 165 litres in 2003. As we strive towards our target of 140 litres by 2030, PUB is constantly looking at other initiatives to get its citizens to do their part by adopting more water saving habits and making use of more water-efficient technology.

The China context

China suffers from serious water resources shortage. China’s per capita water resources are 2,100 cubic meters, which is only 25% of the average value retained by the rest of the world. With China’s accelerating urbanization and industrialization, the gap between supply and demand of water resources has become increasingly prominent. Water resources have become the main constraint of the sustainable development of economy and society of China. The Chinese government has attached great importance to water conservation, and has published a series of measures and policies. China is the largest producer and consumer in the world of water products, and it also has the greatest potential for water conservation. Since 2007, China has begun building their Water Efficiency Labelling Scheme based on Australia’s WELS scheme, specifically relating to sitting toilets and faucets. The standards for water efficiency are mandatory in China, and there are separate standards for each product. The following table shows the standards which have been issued, and which year they were published:

Product	Year published
Faucet	2010
Sitting Toilet	2017
Shower	2012
Urinal	2012
Toilet Flushing Valve	2012
Clothes Washer	2013
Squatting Pan	2014

The China response

In order to promote the domestic adoption of these standards and strengthen the supervision of Chinese water products, the Chinese government has begun the preliminary work of water efficiency labeling since 2007. After years of research, demonstration and coordination, the Chinese water efficiency labeling program has entered the legislative process, known as ' China Water Efficiency Label ', which will be implemented as a mandatory policy. The sitting toilet is the first product which will be put into practice, and others will be implemented gradually. The implementation model of China Water Efficiency Label scheme could be concluded as:

- Self-declaration of manufactures
- Put the information on record to increase visibility
- Market supervision to ensure accurate measurement

Once the test result has been received, manufactures can print and paste the water efficiency label themselves to apply to their products. Manufactures could then request the information filing and could construct and market announcement by the organization which is authorized by the government (China National Institute of Standardization). Finally, the government will organize various forms of market supervision and inspection to ensure the effective implementation of this policy.

Because the water efficiency label scheme in China has not been formally implemented, it is difficult to identify the possible effects and benefits that the scheme would have on water efficiency. However, China agrees that promoting the role of mandatory water efficiency standards and labels, combined with market influencing factors (such as stocks, sales, lifetime and efficiency grades shares and other parameters) would be beneficial to the China. For China, the most benefit would be realized across four categories of products, including sitting toilets, faucets, showers and clothes washers. It has the great potentials to improve the water conservation. The average amount of annual water-saving is expected to reach 11 billion cubic meters by 2030.

Malaysia

Malaysia introduced their Water Efficient Products Labelling Scheme (WEPLS) in early 2013 on a voluntary basis. This scheme has recently been identified as one of the key strategies for water demand management in Malaysia.

Currently however, the Malaysian Water Services Division believes that the use of water saving products due to the WEPLS scheme has not been satisfactory. Because of this, Malaysia intends to make their scheme mandatory in the near future to ensure better water efficiency. For Malaysia, the prerequisite for the registration of WEPLS is the compliance of each product to the Malaysian standard as specified by SPAN.

The Malaysian Water Services Division and SPAN believe that the proposed ISO for water efficiency standard should as far as possible, harmonise the range of water efficiency ratings and subject to the same procedure of testing in determining the nominal flow for the efficiency rating.

New Zealand

New Zealand receives a plentiful supply of fresh water, but it is not uniform across the country. Rainfall is generally much higher on the western side of both the North and South islands. Our lakes and rivers are feeling the pressure of more than 150 years of a growing population, and changes in the way we use water. Demands for fresh water are increasing and there are shortages in some areas at certain times of the year, for example in Canterbury and the Hawke's Bay. There are also increasing demands on New Zealand's water supply infrastructure. Expanding this infrastructure to meet demand can be both costly and contentious, and inevitably involves difficult trade-offs. For example, meeting the water demands of New Zealand's largest city, Auckland, is likely to involve an expensive pipeline to draw additional water from the Waikato River (as closer options become insufficient to meet demands).

Climate change is predicted to affect rainfall patterns, which may exacerbate pressures on freshwater quantity and flows in some areas of the country. Water is becoming increasingly important to the New Zealand public, as people have become more aware of the issues affecting the health of our rivers and lakes, and the pressures affecting the amount of water available. For Māori, freshwater is a taonga – a treasured resource – and has cultural as well as practical importance.

Many local government bodies have adopted water conservation and efficiency plans, in an effort to reduce pressure on infrastructure, and in particular to avoid, where possible, the need for costly investment in additional water supply capacity. Encouraging public understanding of the water efficiency of different products (and therefore the implications for the customer's power and water

bills, as well as the region's water resources) is an important component of such plans.

Benefits of an international standard

As evidenced, multiple countries in the region have moved towards water efficiency schemes to manage urban water demand, with varying success. As Australia has demonstrated an effective net benefit based on AS/NZS 6400:2016, the region supports the adoption of an International Standard based on AS/NZS 6400:2016 as they believe that this standard will assist their domestic governments and local industries reduce water use by implementing a proven water efficiency consumer labelling scheme.

The different water efficiency labelling schemes described above have similar structures. Australia and New Zealand's schemes share a common standard (AS/NZS 6400:2016), and China's Water Efficiency Label policy was developed following a workshop with Australia as part of an agreement between the two countries to share experiences with water management. Singapore and Malaysia's schemes also share similarities with Australia's WELS scheme. What the international standard will facilitate, is formal harmonization and the basis for an ISO label that will link individual national schemes into a system that consumers and business can understand, and one that is multi-national.

An international standard would also encourage the development and marketing of water efficient products, enable consumers to clearly identify and purchase the best products within the industry, and positively influencing manufacturing to improve the performance of their products through consumer power and information.

Potentially within scope are:

- Showers / showerheads and mixers
- Tap equipment / taps and mixers
- Flow controllers
- Lavatory equipment / Dual-flush low capacity flushing cisterns, sitting toilets and squat toilets
- Urinal equipment / urinal flush valves
- Dishwashers for household use
- Clothes washing machines for household use
- The dryer function of combination washer/dryers, where they use water to dry washing loads

Some specific benefits of an International Standard would be:

- **Businesses** will be encouraged to create more water efficient products and services, knowing this will be recognized and will therefore give them a market advantage.
- **Governments** can reduce urban water use by attaching an efficiency rating to water-using products. This can reduce or postpone the need for costly water infrastructure or can allow available water to service a greater number of people.
- **Governments** can also use water efficiency ratings to set minimum product standards, again reducing urban water use without compromising services
- **Consumers** will be encouraged to be water-smart, to think about consumption and create demand pressures on businesses to develop water-efficient innovations and improvements.
- **Business** will be able to trade across borders with no restrictions and a consistent playing field for their exports, increasing competition and opening new opportunities.

As previously mentioned, it is noted in this proposal that various ISO members have water efficiency schemes in place currently. Please see below for current schemes:

- Australia – WELS, underpinned by AS/NZS 6400:2016
- New Zealand – WELS, underpinned by AS/NZS 6400:2016
- Singapore – PUB's Water Efficiency Labelling Scheme (WELS)
- Malaysia – SPAN's Water Efficient Product Labelling Scheme (WEPLS)
- China – China Water Efficiency Label policy

Features of an International Standard

This proposal acknowledges the diversity in supporting countries' testing requirements for water efficiency, which may be voluntary or mandatory. For harmonization to work effectively, this proposal includes key testing requirements in order to derive the water efficiency rating of the products contained within the standard.

This proposal also acknowledges the diversity and localization of Water Efficiency label designs. This ISO proposal is not an attempt to harmonize the labelling design or water efficiency rating but rather provide guidelines for water efficiency rating bands which countries may choose to adopt. The band classification table may be included into countries' water labelling scheme, for consumers to easily identify which band the water efficiency of a product falls into.

This proposal also acknowledges that each supporting country may have legislated or otherwise stipulated standards and requirements that address water contamination, water wastage, reliability/durability or other aspects before the water fittings or appliance qualifies for labelling. The stipulated standards and requirements may differ in each of supporting countries. Hence, countries who intend to develop their own labelling scheme must note that complying with this

ISO standard on water efficiency does not deem that the water fitting or appliance complies with supporting countries' requirements.

Consider the following: Is there a verified market need for the proposal? What problem does this standard solve? What value will the document bring to end-users? See Annex C of the ISO/IEC Directives part 1 for more information.

*See the following guidance on justification statements on ISO Connect:
<https://connect.iso.org/pages/viewpage.action?pageId=27590861>*

Preparatory work (at a minimum an outline should be included with the proposal)

A draft is attached An outline is attached An existing document to serve as initial basis

The proposer or the proposer's organization is prepared to undertake the preparatory work required:

Yes No

If a draft is attached to this proposal,:

Please select from one of the following options (note that if no option is selected, the default will be the first option):

Draft document will be registered as new project in the committee's work programme (stage 20.00)

Draft document can be registered as a Working Draft (WD – stage 20.20)

Draft document can be registered as a Committee Draft (CD – stage 30.00)

Draft document can be registered as a Draft International Standard (DIS – stage 40.00)

If the attached document is copyrighted or includes copyrighted content, the proposer confirms that copyright permission has been granted for ISO to use this content in compliance with clause 2.13 of the ISO/IEC Directives, Part 1 (see also the Declaration on copyright).

Is this a Management Systems Standard (MSS)?

Yes No

NOTE: if Yes, the NWIP along with the Justification study (see [Annex SL of the Consolidated ISO Supplement](#)) must be sent to the MSS Task Force secretariat (tmb@iso.org) for approval before the NWIP ballot can be launched.

Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal.

International Standard Technical Specification

Publicly Available Specification Technical Report

Proposed development track

18 months* 24 months 36 months 48 months

Note: Good project management is essential to meeting deadlines. A committee may be granted only one extension of up to 9 months for the total project duration (to be approved by the ISO/TMB).

***DIS ballot must be successfully completed within 13 months of the project's registration in order to be eligible for the direct publication process**

Draft project plan (as discussed with committee leadership)

Proposed date for first meeting: TBA

Dates for key milestones: DIS submission [Click here to enter text.](#)

Publication [Click here to enter text.](#)

Known patented items (see [ISO/IEC Directives, Part 1](#) for important guidance)

Yes No

If "Yes", provide full information as annex

Co-ordination of work: To the best of your knowledge, has this or a similar proposal been submitted to another standards development organization?

Yes No

If "Yes", please specify which one(s):

[Click here to enter text.](#)

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized.

It is highly recommended that this international standard aligns itself with the content of AS/NZS 6400:2016, *Water Efficient Products – Rating and Labelling*, and seeks engagement from relevant overseas National Standards Bodies and water agencies regarding international standardization.

We have reviewed various ISO Technical Committees to determine their suitability for this project, but believe that the project instead should be part of a new PC. Below is our analysis of existing ISO/TC's:

- **ISO/TC 282: Water Re-use**

Scope: Standardisation of water reuse of any kind and for any purpose. It covers both centralised and decentralised or on-site water reuses, direct and indirect ones as well as intentional and unintentional ones. It includes technical, economic, environmental and societal aspects of water reuse. Water reuse comprises a sequence of the stages and operations involved in up taking, conveyance, processing, storage, distribution, consumption, drainage and other handling of wastewater, including the water reuse in repeated, cascaded and recycled ways. The scope of ISO/PC 253 (Treated wastewater reuse for irrigation) is merged into the proposed new committee.

Committee fit:

Water reuse includes any water being reused for any purpose. There are no guarantees that the water as part of the WELS scheme will be recycled or reused water, nor is the intention of this standard to discuss any aspects of water reuse including technical, economic, environmental or otherwise. Water efficiency labelling is about determining **how much** water is used by manufactured consumer products, not where the water is sourced from or how it is sourced.

- **ISO/TC 147: Water Quality**

Scope: Standardization in the field of water quality, including definition of terms, sampling of waters, measurement and reporting of water characteristics.

Committee fit:

From the work program and scope of the committee, water quality refers to the actual quality of the composition of water, rather than the efficiency of the products procuring the water for use by consumers.

- **ISO/TC 224: Service activities relating to drinking water supply systems and wastewater systems – Quality criteria of the service and performance indicators**

Scope: Standardization of the management concepts for service activities relating to drinking water supply, wastewater and stormwater systems. This structure includes all activities necessary to fulfil the objectives of water supply, wastewater and stormwater systems. Water supply for purposes other than drinking water can be included in this management concept structure.

Excluded are normative target or threshold values for service quality criteria, normative limits of acceptability for drinking water quality or for wastewater and stormwater discharges to the environment, design and construction of water supply, wastewater and stormwater systems discharges to the environment, standardization in sludge recovery, recycling, treatment and disposal as within the scope of ISO/TC 275, standardization in water reuse as within the scope of ISO/TC 282; and methods for the measurement of water quality, which are covered by ISO/TC 147.

Committee fit:

This is likely the closest fit to the proposed work by WELS. However, whilst the scope of TC 224 specifies guidance and requirements in the area of managing drinking water supply, wastewater and stormwater services, it does not cover the performance ratings of products from a consumer perspective. This doesn't suit WELS, as WELS itself is a performance indication/rating system for consumer products, which sets target values in order to receive specific bandings, and ranks consumer products in their usage of all water types, putting it in direct conflict with TC 224. Within the ISO/TC 224, Working Group 12 is developing an ISO standard 24526 on water efficiency management systems – requirements for guidance and use, which assist organizations in managing its operations and processes with a focus on water efficiency. It does not cover the design or performance of products. We also reviewed a preview of ISO 24523:2017 *Service activities relating to drinking water supply systems and waste water systems – Guidelines for benchmarking of water utilities*. This publication seems to relate to flow performance, rather than a scheme that relates to influencing consumer behavior when purchasing water related products (which is what WELS represents). We don't believe that the area of water efficiency and the consumer is covered within ISO/TC 224.

A listing of relevant existing documents at the international, regional and national levels.

AS/NZS 6400:2016

Documents that support the value and benefits of WELS

Report on the second independent review of the WELS scheme (Australia) -

<http://www.waterrating.gov.au/consultation/2015-wels-scheme-review>

Market research survey report (Australia) -

<http://www.waterrating.gov.au/resource/economic-and-market-research-2014-15>

Report of the Evaluation of the Environmental Effects of the WELS Scheme (Australia) – <http://www.waterrating.gov.au/resource/economic-and-market-research-2014-15>

Information on Singapore’s Mandatory Water Efficiency Labelling Scheme

<https://www.pub.gov.sg/wels/labelratings/typesoflabel>

<https://www.pub.gov.sg/wels/suppliers>

UN documents supporting actions that lead to more efficient use of water

Statements from the UN High Level Panel on Water -

<https://sustainabledevelopment.un.org/HLPWater>

UN High Level Panel on Water’s *Water Use Efficiency for Resilient Economies and Societies Roadmap* (June 2017) -

https://sustainabledevelopment.un.org/content/documents/16057HLPW_Water_Efficiency_Roadmap_final.pdf

Please fill out the relevant parts of the table below to identify relevant affected stakeholder categories and how they will each benefit from or be impacted by the proposed deliverable(s).

	Benefits/impacts	Examples of organizations/companies to be contacted
Industry and commerce – large industry	<p>Organizations that choose to comply with this standard could benefit from:</p> <p>Increased consumer loyalty and product differentiation</p> <p>Enhancement of reputation through improved production</p> <p>Clear, concise understanding of consumer expectations</p> <p>A more competitive market with structure across regions</p> <p>Access to new international markets which comply to the same standards</p>	<p>White-good manufacturers</p> <p>Water service providers</p> <p>Plumbers</p> <p>Urban planners</p> <p>Agriculture Industry</p> <p>Food Industry</p>
Industry and commerce – SMEs	<p>SME's can benefit from:</p> <p>Reduced barriers to entry through the WELS framework</p> <p>As above</p>	As above
Government	<p>Governments of member countries could benefit from:</p> <p>Improved efficiency of the various member country's current water resources by attaching an efficiency rating to the products that use them, allowing more water to be used for other purposes such as agriculture</p> <p>Reduced regulation burdens, as each individual government will not need to</p>	<p>Federal and State water resource managers</p> <p>Community planning departments</p>

	administer separate schemes		
Consumers	<p>For consumers, they could mainly benefit from:</p> <p>Reduced household expenditure on water bills</p> <p>The ability to make more informed choices about their water efficiency</p> <p>Likely to have more products to choose from due to reduced barriers of entry</p> <p>Overall consumer empowerment, coupled with knowledge of doing something positive for the environment</p>	National Consumer Bodies	
Labour	<p>The labor force could benefit from:</p> <p>Increased innovation and new skills to create new, water efficient products</p> <p>Transferrable skills and workforce flexibility due to international nature of the standard</p> <p>Employment will likely increase as organizations that have less barriers to entry hire more staff</p>	All industry specific labor	
Academic and research bodies	<p>Research facilities could benefit from:</p> <p>Pool of knowledge associated with consumer behavior per country. This can be compared against existing data to give a more accurate picture of customer behavior</p>	Universities, research institutes	
Standards application businesses	Click here to enter text.	Click here to enter text.	
Non-governmental organizations	Click here to enter text.	Click here to enter text.	

<p>Other (please specify)</p>	<p>Environmentally, this standard could reduce the water usage allowing freshwater reservoirs and estuaries to retain more water. This can have a significant benefit during droughts and other water shortage disasters</p>	<p>All</p>
<p>Liaisons: A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). ISO/TC 138/SC 2 <i>Plastics pipes and fittings for water supplies</i> ISO/TC 147 <i>Water quality</i> ISO/TC 224 <i>Service activities relating to drinking water supply systems and wastewater systems - Quality criteria of the service and performance indicators</i> ISO/TC 282 <i>Water reuse</i></p>	<p>Joint/parallel work: Possible joint/parallel work with: <input type="checkbox"/> IEC (please specify committee ID) Click here to enter text. <input type="checkbox"/> CEN (please specify committee ID) Click here to enter text. <input type="checkbox"/> Other (please specify) Click here to enter text.</p>	
<p>A listing of relevant countries which are not already P-members of the committee. Click here to enter text.</p> <p>Note: The committee secretary shall distribute this NWIP to the countries listed above to see if they wish to participate in this work</p>		
<p>Proposed Project Leader (name and e-mail address) Brett Lovett, Stakeholder Engagement Manager, Standards Australia Brett.lovett@standards.org.au</p>	<p>Name of the Proposer (include contact information) Dr. Carol Grossman, Director, Department of Agriculture and Water Resources, Australian Government Carol.Grossman@agriculture.gov.au</p>	
<p>This proposal will be developed by:</p> <input type="checkbox"/> An existing Working Group (please specify which one: Click here to enter text.) <input type="checkbox"/> A new Working Group (title: Click here to enter text.) (Note: establishment of a new WG must be approved by committee resolution) <input type="checkbox"/> The TC/SC directly <input checked="" type="checkbox"/> To be determined		

Supplementary information relating to the proposal

- This proposal relates to a new ISO document;
- This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item;
- This proposal relates to the re-establishment of a cancelled project as an active project.

Other:

[Click here to enter text.](#)

Maintenance agencies and registration authorities

- This proposal requires the service of a maintenance agency. If yes, please identify the potential candidate:

[Click here to enter text.](#)

- This proposal requires the service of a registration authority. If yes, please identify the potential candidate:

[Click here to enter text.](#)

NOTE: Selection and appointment of the MA or RA is subject to the procedure outlined in the [ISO/IEC Directives](#), Annex G and Annex H, and the RA policy in the ISO Supplement, Annex SN.

- Annex(es) are included with this proposal (give details)

[Click here to enter text.](#)

Additional information/questions

[Click here to enter text.](#)