



water forever

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FOREWORD

The delivery of sustainable water services in the future is now more than ever before, a fundamental issue of concern for all Western Australians. With this level of interest comes the expectation that the community will be given an opportunity to contribute to decision-making and adopt change on their own terms. This is reflected in a desire to see decisions on water undertaken in an equitable manner – all parts of society contributing to the outcome and sharing the costs and benefits.

Water Forever *Reflections* is the culmination of our efforts to get all Western Australians involved in the Water Forever platform to plan for our water future. It has been one of the most comprehensive community engagement processes undertaken by the Corporation where everyone from school students, industry groups, government agencies and families were invited to have their say.

One of the most striking aspects of the community engagement process has been the consistency of views expressed, across and within each forum. Participants generally accepted the planning assumptions – population growth, impact of climate change and so on – and strongly endorsed the need for each one of us to reduce the amount of water we use in our daily lives.

There was however, broad recognition that this reduction should not come at the expense of our environment, lifestyle or the welfare of the less fortunate in our society. Finding this balance is likely to be the biggest challenge we face in developing our strategy for the next 50 years.



One of the key objectives of Water Forever is to listen to and engage with the community in a transparent and accountable manner in developing our long term plan. Through the “Have Your Say” phase, the community have been able to voice their opinions and become more informed on options for future water services.

Water Forever *Reflections* delivers on that promise and will help to shape the Corporation’s long term planning for integrated water service delivery.

Catherine Ferrari

Catherine Ferrari
General Manager, Communications

SUMMARY

“Water has always determined the viability of communities and it is thus a community wide obligation for us all to zero foot print as much as possible.” Email feedback

As a rapidly growing State, water demand in Western Australia is predicted to increase, fuelled by escalating population and pressure on existing water resources due to the impact of a drier climate. Similarly, the metropolitan wastewater system is almost at full capacity and needs significant expansion to meet the demands of a growing population.

Water Forever is examining a range of water source and water service initiatives to meet this demand in a strategy for the next 50 years. A key component of doing so is to engage with the communities of Perth, Mandurah and surrounding areas to help shape water service delivery well into the future.

Water Forever *Reflections* encapsulates the community's values and preferences on a range of planning and source development considerations in responding to the anticipated demand-supply gaps.

The “Have Your Say” community engagement phase provided formal and informal opportunities for the community and stakeholders to get involved in planning for our water future.

This report summarises the outcomes of the four-month engagement phase, which included various open forums as well as a public comment period. Over 2,350 people participated in this process, mainly from the greater Perth metropolitan area which is the focus of the project.

The underlying approach of this engagement was to define broad themes for our water future and is not intended to be statistically representative. While there was some divergence of views on all issues, major themes are evident:

Healthy ecosystems: The interaction between water service delivery and the environment was a subject of great interest for participants, many of whom stated they wanted future water source development to have minimal impact on the environment, be sustainable, and help maintain biodiversity.

Water conservation and efficiency: The community are generally very keen to preserve our outdoor lifestyle, while using significantly less water. Participants want to see community-wide behaviour and values changed through more community education, incentives (including price) and regulation (for example, building codes). These initiatives should be supported by investment in the development of technology-based solutions such as smart water meters and water efficient appliances.

Fit for purpose alternative water supplies: Matching the quality of water to the purpose it's used for was another area highlighted through a high level of support for alternative water supplies. Rainwater tanks received strong community support as an additional water source, followed by household greywater reuse and third pipe systems. There was a clear preference for the recharge and reuse of drainage water locally, where possible. This reinforced the need for us to actively seek opportunities to make Perth a water sensitive city by maximising the use of alternative and local water supplies.

Water recycling: Many participants, notably stakeholders, felt that the time had come to start thinking about “wastewater” as a resource. There was particularly strong support for recycling for industrial purposes and greywater reuse. Community support for groundwater replenishment (recycled water for drinking) is growing, indicating support for the three year trial due to commence in 2009.



PUTTING IT IN CONTEXT

Water Forever is developing a long term plan for Perth, integrating water, wastewater and drainage with land planning. We are planning and delivering service improvements throughout the State to meet the needs of growing communities and reflect changing standards for public health, safety and environmental management. We are seeking to achieve this aim in a sustainable way taking into consideration the needs of the environment and the preferences of the community.

PUTTING IT IN CONTEXT

“Triple the price!”

Shopping Centre display feedback

The objectives of the Water Forever project are to:

- listen to customers and stakeholders;
- provide information about current activities;
- support integrated land and water planning;
- provide a platform for private sector participation; and
- develop an integrated 50 year plan for sustainable water services.

Current data suggests the most likely water scenario for 2060 incorporates significant growth in water demand (on the back of substantial population growth) and a significant decline in supply (due to a drying climate and much-reduced runoff into dams and groundwater). Similarly, the metropolitan wastewater system is almost fully utilised and will need to double its capacity over the next 50 years to meet the demands of increased population and increased levels of water recycling.

These dynamics mean we are faced with a decision: how best to close the gaps?

Water Forever is focused on water planning for the Integrated Water Supply Scheme and metropolitan wastewater and drainage networks, which service more than 75 per cent of the population of Western Australia.

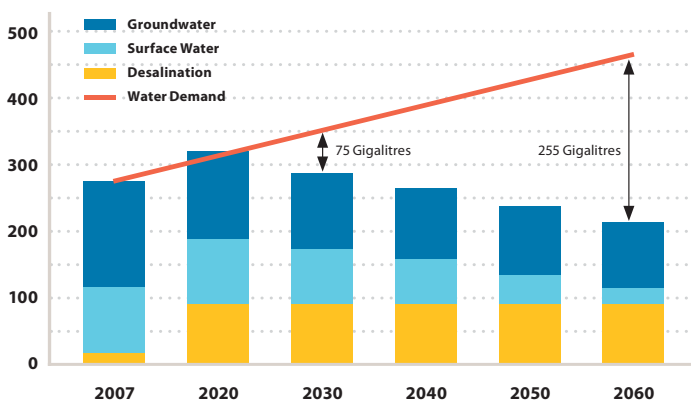
Water Forever will produce a long-term plan which will:

- emphasise the need to balance supply and demand options;
- recognise the cultural, economic, environmental and social significance and implications of water planning and management;
- explicitly link water and wastewater to planning and use of land; and
- integrate all elements of the water cycle including water supply, wastewater and drainage.

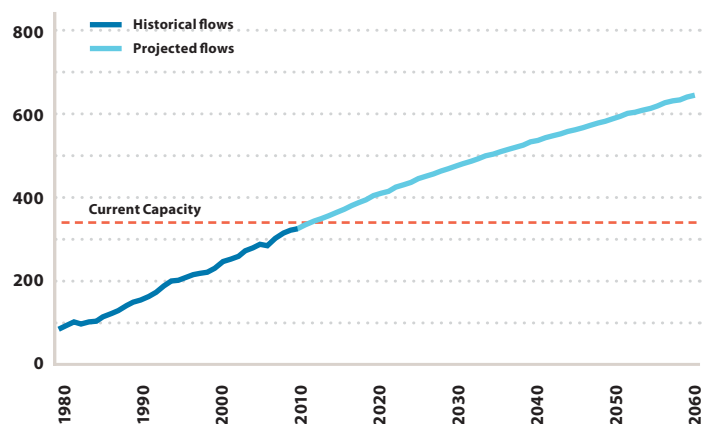


There are many uncertainties involved in planning out to 2060. The Water Forever approach will address three planning horizons – 2020, 2030 and 2060 – and recognise increasing uncertainty in the longer term. Consequently, Water Forever will combine detailed strategies, with respect to the nearer horizons and underlying principles for the longer term. The concept of horizon planning recognises that activity at each horizon should create options for the future.

The demand supply gap (figure 1.)
(Gigalitres per year)



The wastewater treatment gap (figure 2.)
Planning scenario (megalitres per day)



HAVING YOUR SAY

The community engagement approach adopted by Water Forever was comprehensive and wide-ranging. It included a number of different communication channels to provide as many opportunities as possible for people to have their say. From shopping centres to schools, peak industry groups, workshops to websites, a broad cross-section of Western Australians voiced their opinions on the future of our water supplies and what they felt should be done to deliver sustainable water services.

HAVING YOUR SAY



How we engaged with the community

This report summarises the “Have Your Say” phase of Water Forever, and, consequently, represents the “What You Said” phase (see Table 1 overleaf).

Through the “Have Your Say” phase we aimed to promote the exchange of ideas and information, hear the views and preferences of the community and take these into account in developing an integrated plan for the future. These objectives are set in the context of a relatively high level of community awareness and interest in water issues.

We acknowledge that the outputs of the community engagement phase are not formally “representative” in a statistical sense. The objective is to lay the foundations for an ongoing process of dialogue with the community where they are given an opportunity to understand and contribute to decisions which affect them and the environment.

Through this process, we also sought to address the community’s lack of confidence in long term water planning. The involvement of the community will serve to increase awareness and potentially the diversity and creativity of proposed solutions. The interests of the community and of the Water Corporation are therefore served by an effective, authentic community engagement process.

The “Have Your Say” phase offered a number of formal and informal opportunities for community members and stakeholders to contribute to Water Forever.

In addition, Water Corporation staff were also available for individual contact by telephone, email or meeting. Feedback from participants was generally very positive about the engagement process and the quality of information provided.

Feedback from the “Have Your Say” phase has been collated and analysed in three ways:

1. the priority of an issue was estimated based on the number of times it was mentioned during discussions;
2. the support for an assumption, option or response was assessed from two survey instruments (online survey and an interactive response tool used in some of the workshops); and
3. ideas and concerns were summarised based on a variety of qualitative methods (eg: interviews, workshop mind-mapping, textual analysis).

All findings are summarised in the “What We Heard” section of this report.

“Need for smart metering”

Options workshop

Engagement Objectives and Process

Through community engagement on Water Forever, the Water Corporation aims to:

- provide information about current activities and options for the future;
- obtain feedback on options and alternatives;
- provide opportunities for a wide range of community members, including families, stakeholders, technical experts, industry leaders and youth to contribute to WA's water future; and
- generate new ideas for water service delivery.

The project was initiated in October 2007 through a stakeholder launch. There was extensive print and radio advertising inviting customers to get involved and register their interest in the project. Identified stakeholders and business customers received hard copy and electronic mail-outs about the project. All customers received information about the project with the "Watermark" publication that is enclosed with consumption bills.

In October 2007 a dedicated project website was established at www.watercorporation.com.au/waterforever. All information about the project is updated here, including copies of key publications and information sheets.

The website also includes reports from the Water Forever Science Panel, links to detailed technical papers and links to relevant external websites.

The website provides interactive opportunities for community engagement including:

- online registrations to receive regular updates;
- web blog;
- information about upcoming events; and
- online surveys and an opportunity to comment on the project.

The findings of this report will be integrated with technical considerations and modelling in the development of a draft 50-year plan to be released in February 2009. Further opportunities for comment will be provided at that time. On the basis of that draft and associated comments, a full plan will be published in mid 2009.

"Listen to all that is spoken about our water schemes and supplies... and learn."

Waterwise school student

Water Forever process overview (table 1.)

Phase 1	Do you want to be involved in making decisions about water and wastewater services for Perth?	Get involved	Throughout the project
Phase 2	What are the major issues that need to be addressed in relation to water and wastewater services for Perth?	Have your say	March - June 2008
Phase 3	Here is a summary of your input into planning to date.	What you said	July - August 2008
Phase 4	Here is a draft plan that indicates where we're heading. Do you agree with the direction we're proposing to take?	What we plan to do	February - May 2009
Phase 5	Developed with your input, here is our final plan and how we will implement the strategy.	How we will do it	Mid 2009

“There is always room for improvement and a more transparent planning system with the opportunity for resident input to be increased.” Online feedback

The approach was designed to gain the widest possible input by using diverse points of engagement. The Water Corporation took the initiative to customers and stakeholders and engaged with the different communities of interest likely to be impacted through our long term planning processes.

Level of Community Engagement

Over 2,300 people took part in “Have Your Say” activities between March and June 2008. A summary is provided in Table 2 below.



Summary of “Have Your Say” activities (table 2.)

Forum	Completion Date	Participants
Conservation Council Futures Forum	March 18	72
Australian Water Association Conference	April 4	68
Youth Forum	April 9	45
Shopping Centre Displays	May 17	1608
Schools	May 31	123
Stakeholder Forum	April 23	57
Options Workshop	June 11	108
Website – survey	June 30	187
Website – comments	June 30	31
Public Submissions	June 30	16
Emails (received via Customer Centre)	June 30	42
Total Participants		2,357



WHO WE HEARD FROM

This section provides an outline of different engagement processes adopted including who participated and key areas of discussion.

WHO WE HEARD FROM



Conservation Council – Water Recycling Futures Forum

The Conservation Council hosted a forum on 18 March 2008 on the future of water recycling. The Water Corporation was a major sponsor of the forum and assisted in its development. The event was promoted to registrants on the Water Forever database and through the website. The forum was attended by 72 participants primarily representing conservation groups and the community as well as the State Government.

Along with the Minister for Water Resources, other eminent speakers included Steve McKiernan and Chris Tallentire from the Conservation Council, Di Thorley former Mayor of Toowoomba City Council, Leon English from the Department of Water, Richard Theobald from the Department of

Health, Blair Nancarrow and Simon Toze from CSIRO and Nick Turner from the Water Corporation.

The workshop included a session where all participants considered opportunities to recycle water for agriculture, public open space, industry, drinking water and household use.

Major issues that arose from this workshop were:

- strong support for a significant recycling target: more than 40 per cent of all water should be recycled by 2029;
- support for the Water Corporation's groundwater replenishment trial and ultimately drinking recycled water;
- need to engage with the community to build trust and confidence in a range of water recycling end uses;

- streamline 'red tape' to enable new approaches;
- bring bushland back to passive states – don't irrigate all public open space;
- greater transparency needed in the allocation of water to agriculture;
- support for higher density living to promote water efficiency;
- improve stormwater management;
- reduce water consumption before recycling - reduce and recycle before developing new sources;
- develop more water use efficiency mechanisms for agriculture – based on science; and
- price water for industry accurately.

“Structural problem of urban planning based on low density urban sprawl.”

Conservative Council Futures Forum



Australian Water Association (AWA) Conference

The WA Branch of the Australian Water Association held a one-day conference on 4 April 2008 on the topic: "Our Water Future – Water Forever in a Surging City". The Water Corporation was a major sponsor of the forum and assisted in its development. In addition, the Corporation retained the keynote speaker, Prof. Graeme Pearman, to address the forum on climate change in South West of Western Australia.

68 participants attended the conference which was promoted to members of the AWA and to registrants on the Water Forever database and through the website.

The list of guest speakers included Professor Lyn Beazley - Chief Scientist of Western Australia, Professor Graeme Pearman from the Climate Institute, Professor Richard Weller from the University of Western Australia, Barry Sanders from the Academy of Technological Sciences and Engineering (ATSE), representatives from the Department of Water, Gngara Sustainability Strategy, WA Local Government Association and the Water Corporation.

This event was primarily to share information.



Youth Forum

The Water Corporation held a Youth Forum on 9 April 2008 to convene a broad-ranging discussion with students from years 11 and 12, from schools in the greater Perth metropolitan area. All public and private schools were invited to participate. The forum was opened by the Minister for Water Resources.

This interactive forum provided an opportunity for students to have their say on a range of water issues. The workshop session involved the construction of "futures wheels" around key themes selected by the group. Major themes explored were loss of the environment, climate change, less rain, population increase, environmental damage and salinity. The forum was facilitated by Anita Kelleher from Designer Futures.

Using a real-time survey instrument, participants demonstrated their preferences for future water and wastewater services. The key areas highlighted were the need for increased use of rainwater tanks and recycled water for irrigation. The lack of confidence that Perth will have enough water for the future was also discussed.

A workshop summary was sent to all participants and included a vision of water through to 2030, as interpreted by the facilitator from the day's contributions.

In addition to this forum, the Corporation's Waterwise Schools team engaged with primary school students about the State's water future as they visited schools. The key themes arising from this engagement was the need for improved in-home water efficiency including more rainwater tanks and an increase in water recycling.

"Reduce consumption 3R's (reduce, reuse, recycle)." Youth Forum



Options Workshop

The Options Workshop held on 11 June 2008 was the cornerstone of the engagement phase. Approximately 108 participants from a wide variety of backgrounds including the community, researchers, water industry experts, industry, stakeholder groups and government representatives participated in the full-day interactive program to explore options and share their preferences and values with respect to water. John Barrington from the Barrington Group facilitated the workshop.

Some of the key themes from the workshop included:

- the need for real change in water use and behaviour. Maintaining the status quo was not seen as an option;
- the need for every community member to play a role in designing our water future, although it was noted that industry leaders would need to engage with the community and adapt to changing expectations;
- a key principle suggested was to further increase the diversity of sources, with an emphasis on recycling and local sources.

The disadvantages of desalination (energy intensity and cost) were recognised in this context;

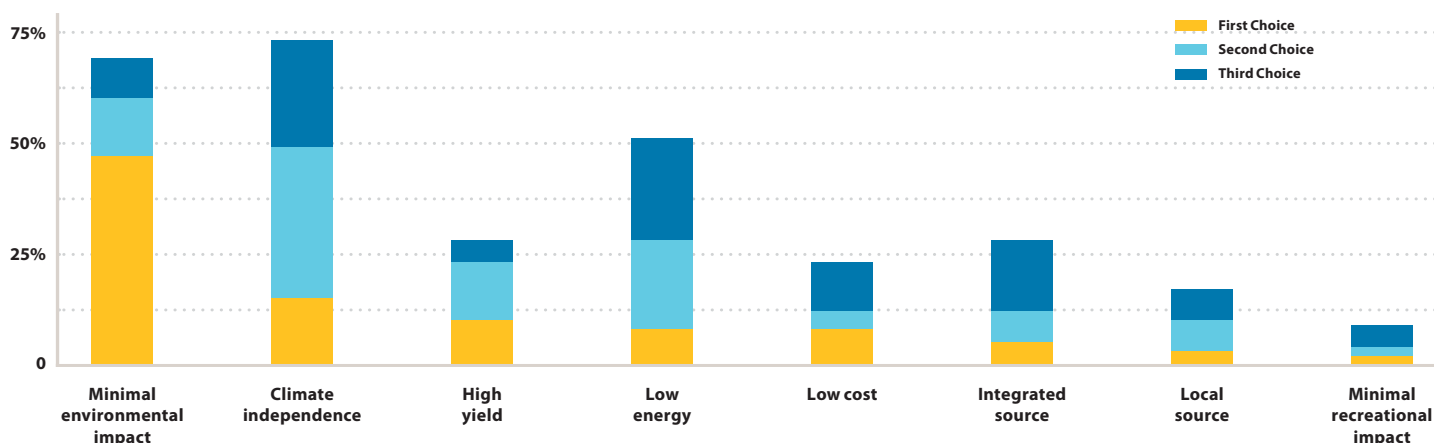
- water industry leaders were urged to push the innovation agenda harder in pursuit of solutions, while preserving the priority to protect public health; and
- the current state of planning was characterised by a lack of holistic planning and integration. This needs to be addressed urgently to ensure optimum decision-making and improve implementation effectiveness.

The workshop participants nominated their top three criteria in source decision-making. The standout was “minimal environmental impact”, listed as the number one criterion by almost half of all respondents. “Climate independence” and “low energy” were also prioritised by a majority of respondents. The results are summarised in figures below.

“Energy usage must be taken into the equation for water recycling.”

Water Forever Options Workshop

Top three criteria in water source development (Options Workshop) (figure 3.)





Stakeholder Forum

The Stakeholder Forum held on 23 April 2008 was an opportunity for key stakeholders in the Water Forever project to consider the assumptions and options for long-term water service delivery in WA. 57 participants including representatives from industry, State and local government agencies and stakeholder groups attended the forum to consider the Water Forever Options Paper prior to its release for public comment.

Following presentation of the Options Paper, participants discussed the merits of the options, implications for their respective organisations and issues for further consideration.

“‘Waste’ water is a misnomer. This is simply a resource that should be appropriately used.”

Stakeholder forum

Major issues that arose from this forum were:

- promoting responsible use of water regardless of rainfall or the customers ability to pay for it;
- use of scheme water on gardens may not be acceptable in the long run – though the importance of gardens (public and private) in enhancing amenity and lifestyle was recognised;
- the use of water in public and private contexts is inter-related; a balanced effort must be devoted to managing these uses;
- caution should be exercised when using climate change models – actual data is tracking along the extreme end, rather than the median, of the model ranges; and
- higher urban density was recognised as an essential lever in reducing water use. Community resistance to increasing the density of existing urban areas was acknowledged and the need to coordinate this densification across government was highlighted.

Shopping Centre Displays

Water Forever shopping centre displays were held in major shopping centres around Perth over an eight week period between March and May 2008. The displays encouraged the community to register their interest in the project, obtain information about current water activities, ask questions about water services, and record their thoughts on our water future. The displays were located in the following shopping centres from Wednesday to Saturday and were manned by Water Corporation staff.

- Centro Galleria, Morley
- Garden City, Booragoon
- Karrinyup Shopping Centre, Karrinyup
- Westfield Carousel, Cannington
- Whitford City, Hillarys
- Rockingham City, Rockingham
- Lakeside Joondalup, Joondalup

In total 1,608 people visited the display and 610 registered their details on the Water Forever database. Of those who registered, 404 provided written comments.

Shopping Centre Displays (cont'd)

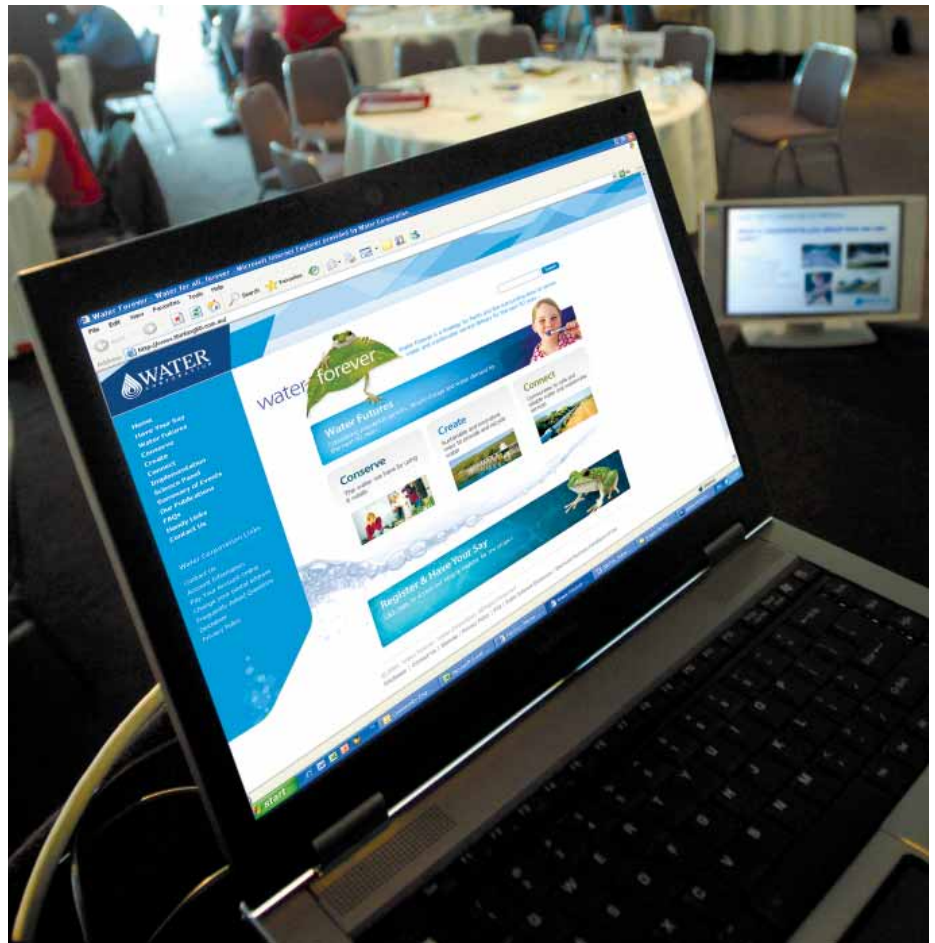
The majority of comments related to increased adoption of in-home water sources (rainwater tanks, greywater systems) and increased efficiency measures in and around the home. More water-efficient management of public open space was suggested as well as some support for increased desalination. There was a strong awareness of existing waterwise measures such as reduced shower times and sprinkler restrictions. Delivering water from the State's North West was popular with some.

Water Forever Website: Survey

This online survey on the Water Forever website (www.watercorporation.com.au/waterforever), led participants through the Options Paper and sought validation and insight into community preferences around planning assumptions, water use efficiency, water sources and interaction with the natural environment.

The survey questions were generally presented in the form of: "To what extent do you support the statement ..."; the response options were "Support", "Do Not Support" and "Partially Support". 187 respondents provided feedback online from April to June 2008.

The results of the survey broadly aligned with the comments provided across other forums with strong support (more than 70 per cent) recorded for the current sprinkler roster and in-home water efficiency measures such as rainwater tanks and greywater systems. Increased water recycling by industry and recharging the aquifers with stormwater, also received



strong support. Split opinions (more than 20 per cent "Support" and more than 20 per cent "Do Not Support") were recorded for increased use of garden bores, desalination and the development of dams and groundwater sources.

Water Forever Website: Comments

31 comments were received via the Water Forever website as at 30 June 2008, through emails and entries in the Water Forever Blog.

Comments broadly aligned with views expressed in other forums, including emphasising in-home efficiency measures, outside the home measures, support for rainwater tanks and using pricing as a lever to drive water conservation.

"I would like to see government legislation that makes it compulsory for new built housing to have greywater recycling systems and rain tanks in every house."

Shopping Centre display feedback

“Need to recognise the value of gardens in lifestyle issues.”

Stakeholder forum



Indigenous Engagement

The Water Corporation has sought to acknowledge and include indigenous cultural and spiritual values as part of Water Forever. In partnership with the Corporation's Indigenous Resource Section, Water Forever developed an information sheet on indigenous cultural values related to water.

A Welcome to Country was incorporated in all major Water Forever events and the Water Corporation has liaised with the South West Aboriginal Land and Sea Council on Water Forever, including future water and wastewater options. This liaison will continue as the project progresses.

Public Submissions

The call for public comment on the Options Paper resulted in 16 written submissions from individuals and organisations. In addition, a further 42 comments were received by email or telephone. Again, comments broadly reflected the priorities of the other forums. Of particular emphasis in the submissions were the role of education, the importance of an integrated approach to planning and management, the crucial role of local government, and the value of close-to-home conservation measures.

A summary of the highlights and general themes from each submission is outlined below. For privacy reasons, only submissions received from organisations have been included in the summary.

Australian Association for Environmental Education

- Priority for community education particularly focussing on environmental education so that this supports the technical solutions proposed.

Australian Water Association (WA Branch)

The submission highlighted the many uncertainties facing the urban water sector in Perth over the next 50 years including:

- governance arrangements and the extent market forces will affect the delivery of water services;
- future pricing and charging regimes and the value the community will place on healthy and secure water services;
- Government investment in water infrastructure;

- impact of the improved water trading regime on alternative or new sources of water supply;
- advances in water treatment, distribution and disposal technology;
- impact of climate change and increasing energy costs; and
- the challenges planners face in developing a robust and resilient plan for 50 years ahead.

AWA commended the Water Corporation for adopting a wide ranging, strategic and inclusive approach in its planning and for the high quality of information presented.

City of Armadale

Key issues:

- drainage governance is a major concern;
- accountability and transparency for expenditure of funds raised through drainage rates;
- identifying new drainage works as the responsibility of local government shifts costs without adequate recompense and consistent standards across the catchments;
- long term viability of local government providing flood paths through the catchment to manage major storm events;
- planning and acquisition of areas to store 1-in-100 year storm events should be undertaken on a regional and catchment basis and be supported by the creation of regional open space or public purpose (drainage) through the Metropolitan Region Scheme; and
- lack of research into effective methods of drainage treatment.

“It is encouraging that the Water Corporation has a future focus. However I am concerned at the maintenance of the centralised control that is apparent in the plans. More needs to be done at the local and even household level e.g. greywater reuse, rainwater collection, stormwater use, etc.” Online feedback

City of Fremantle

Key issues:

- supports water recycling options at the regional, community and individual levels first over the development of new sources;
- supports the proposed water recycling measures including groundwater recharge and recycled water for industrial and irrigation purposes;
- supports incentives for individuals implementing alternative water supplies; and
- expressed concern about the use of private bores in areas close to the coast or the river where there is a risk of salt water intrusion if the freshwater aquifer is depleted.

Country Women’s Association of WA

Key issues:

- greater education to encourage the general public to adopt a “Water Wise” lifestyle particularly focussing on those who do not appear to have adopted the conservation message;
- more education on recycled water for drinking purposes and encourage greywater recycling (household or community);
- improved financial incentives to encourage all homeowners to install a water storage scheme with subsidies to connect to laundry and toilet facilities;
- new building plans (dwellings and commercial) should be required to install rainwater tanks, greywater systems and cold water run-off units where possible;
- a swimming pool licence system; and
- relaxation of codes relating to the use of non potable water for dust control in construction, mining and road works.

Department of Health (DOH)

Generally very supportive of the overall aims of Water Forever. However, the following comments were highlighted:

- public acceptance of the use of recycled water for horticulture requires significant education to address concerns about food safety and soil salinity;
- aboriginal cultural beliefs should be considered in any plans to broaden use of recycled water for food production;
- sand filtration and disinfection is not a standard requirement for irrigated recycled water schemes;
- address community concerns when accessing areas for recycling through sewer mining;
- rainwater tanks – concerns were raised about the use of installed systems and the potential for health and environmental problems if the systems are poorly located or not maintained properly;
- greywater systems – while the uptake was supported, the mandatory installation of a multitude of units, could be inappropriate if the risks outweighed the benefits;
- although there would be greater institutional/community rather than individual expense, communal collection, treatment, monitoring and delivery may be a more efficient and safer method of accessing some recycled water sources; and
- the role of DOH in approving and monitoring recycled water schemes needs to be acknowledged under government agency responsibilities.

Department of Planning & Infrastructure (DPI)

Key issues:

- consider ways of addressing potential variances in the event of unexpected levels of population growth or decline in priority areas;
- work with DPI to integrate water service issues and the principles of the State Water Plan more effectively into land use plans and policies;
- Water Sensitive Urban Design - co-operation between DPI, other agencies and the land development sector to ensure that water planning at catchment, community and household levels seek to achieve mutual aims for water conservation;
- strategic planning for essential services infrastructure to ensure that development occurs in a sustainable manner;
- ensure that the land use planning system is both robust and flexible to support new focus on recycling and water treatment; and
- consider needs of regional communities in the expansion into the peri-urban zone of Perth to access more water resources (desalination, surface, ground water).



“Desalination is the way of the future.”

Shopping Centre display feedback

Eastern Metropolitan Regional Council

Key issues:

- adoption of Water Sensitive Urban Design in new developments is supported and encouraged;
- consultation is required on the concept of drainage works being the responsibility of local government;
- general support for water use efficiency measures suggested however additional thought needs to be given to incentives for retrofitting existing houses, businesses and industry;
- the need to protect ecological processes for natural assets;
- strong support for increasing opportunities for rainwater capture and use of greywater reuse systems;
- more emphasis and community education on measures for reuse of treated wastewater and greywater;
- further regulation of garden bores;
- water pricing needs to reflect true costs with allowances for those on lower incomes; and
- future planning must be undertaken in consultation with Local Government.

Environmental Defenders Office

Key issues:

- expanding the focus of Water Forever to include the notions of intergenerational equity where the water needs of future generations can partly be met by the water efficiency of the current generation;
- the more vigorous promotion of sustainable alternative water supplies such as water recycling and rainwater tanks;
- decisions to accelerate water conservation initiatives or invest in new supply capacity should not be deferred on the basis of scientific uncertainty. Early adoption is in the best interests of all;



- strongly supported the investment in renewable energy sources; and
- did not recommend cloud seeding, groundwater from the South West Yarragadee or moving water from the Kimberley, on environmental grounds.

Friends of Paganoni

Key issues:

- maintenance of water levels in swamps;
- environmental impact of taking ground water from Karnup;
- possibility of reducing salinity of water flows by tree planting and other salt control methods; and
- suggestions for improving water efficiency in the home and general comments on water recycling.

Urban Development Institute of Australia (WA)

Key issues:

- population forecasts were queried. Basing future water demand forecasts on most up to date data available and reviewing these during the life of the plan was recommended;

- concern that population forecasts and therefore demand forecasts, were too conservative (low);
- water demand projections should take into account the rate of household growth which is predicted to exceed the rate of population growth;
- support innovative programs proposed by the development industry whose objectives are improved water efficiency and demand management;
- cost implications of mandated requirement for third pipe schemes;
- integration of land use policy and infrastructure policy to facilitate orderly urban development; and
- all environmental assessments for new wastewater treatment plants should be obtained early in the planning process ahead of rezoning applications so that conservation and land supply imperatives are achievable within requisite time frames.

Water Standard Company Australia Pty Ltd

Outlined the advantages of Seawater Desalination Vessel supported on a portable marine platform compared with land-based desalination technology.



WHAT WE HEARD

The general consistency of the views expressed, across and within each forum was a striking aspect of this community engagement process.

WHAT WE HEARD

So what did we hear through engaging with the community? One thing that stood out through the whole engagement process was the general consistency of the views expressed. In fact, almost 60 per cent of all comments in aggregate, related to the top 10 issues.

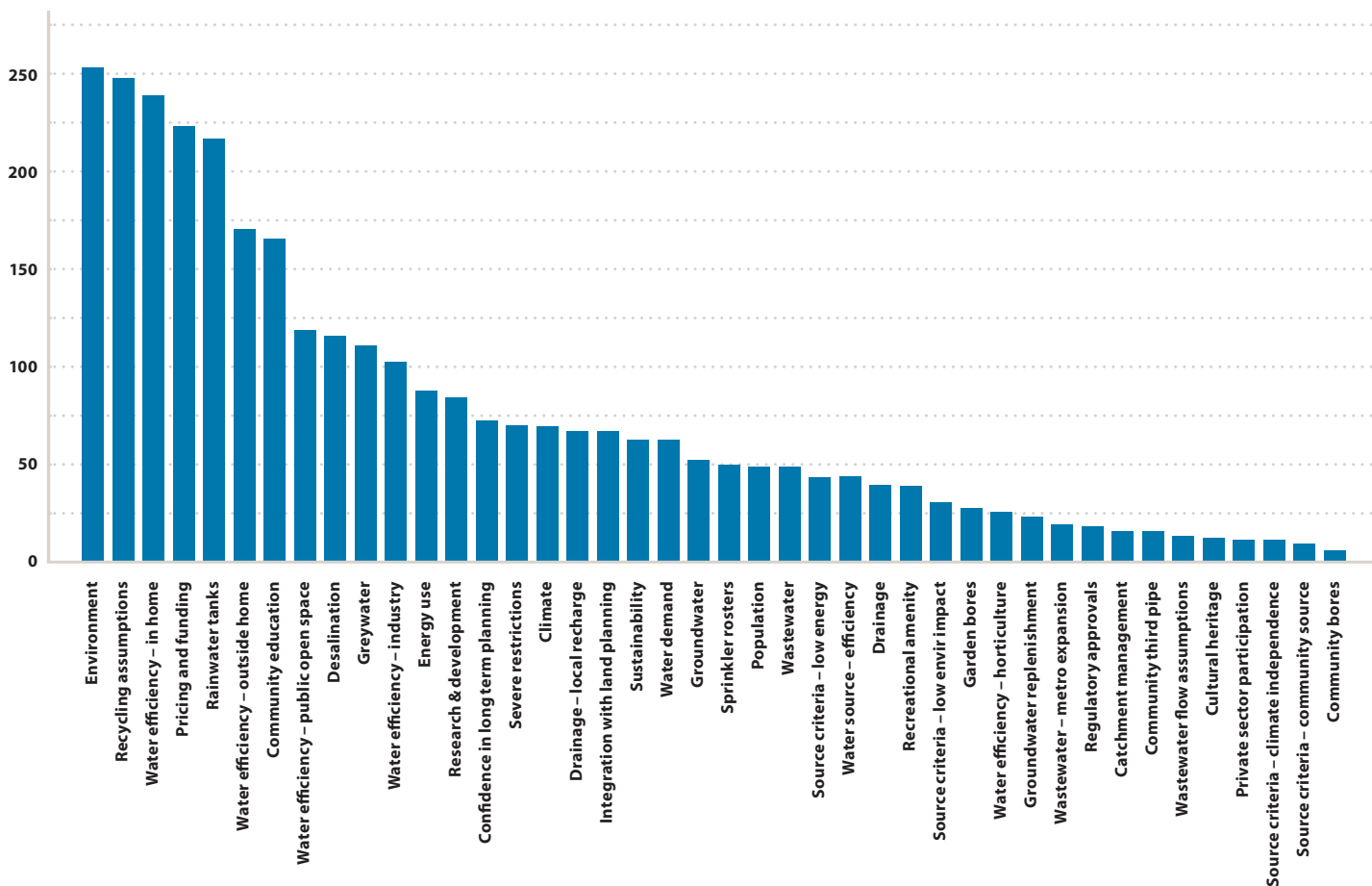
The combined output from all consultation forums and surveys are analysed in Figure 4. A total of almost 3,500 comments were received on the categories shown below.

The highest priority relates to environmental concerns followed by the need for more in-home water efficiency measures, rainwater tanks, recycling and community education. There was general acceptance of the assumptions we adopted in our planning such as population growth, impact of a drying climate on rainfall and the need for us to reduce the amount of water we use in our daily lives. The community are strongly supportive of using price as a lever to manage water demand.

“We should be putting stormwater into the aquifers not the sea.”

Online feedback

Most mentioned topics by number, across all engagement activities (figure 4.)



“I won’t be around in 50 years but I am concerned for my children and grandchildren. You need to act now before the environment is compromised forever. Everyone needs to be made accountable for their water usage- therefore rationing allocation per person. When this is breached, there are penalties...”

Water Forever Options Workshop

Planning Assumptions

Referred to throughout the engagement as “Water Futures”, the planning assumptions used in the Options Paper were well-supported by Water Forever contributors. Most people who completed the online survey and those who participated in the Water Forever Options Workshop supported or partially supported the fundamental population and climate assumptions (See Figure 5 for online survey results). Increased recycling and current restrictions on domestic use were endorsed, though support for more severe restrictions was mixed.

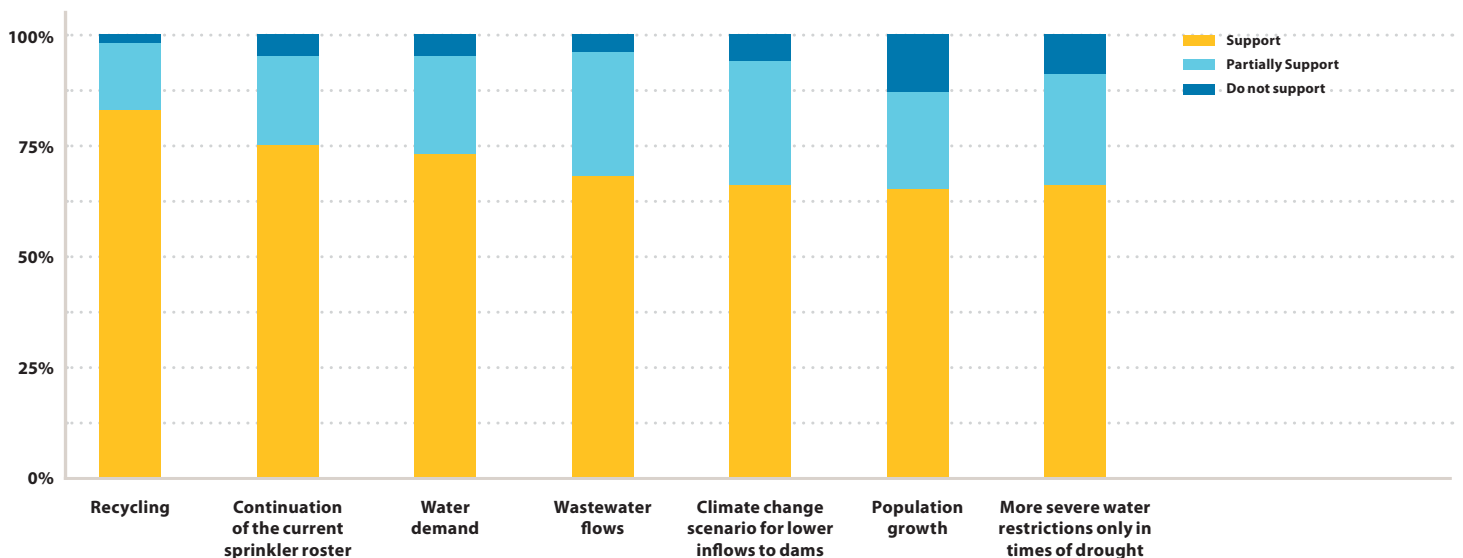
The population assumption of 2.8 million people by 2060 was supported, however participants in many forums suggested actively constraining population growth to improve overall sustainability. There was some concern that this forecast was overly conservative however and may underestimate future demand.

The main concern regarding the assumption of a drying climate leading to reduced dam and groundwater inflow was that this underestimated the impact of climate change. Some participants did feel that short term variability may be exaggerating the impact of climate change on recent rainfalls.

With respect to using less water, the domestic per capita target of 100kl was supported. However it was noted that this was only marginally less than current use. Consistent with this theme, existing sprinkler rosters were strongly supported (eg 76 per cent “Support” rating in the online survey).

Support for Planning Assumptions (figure 5.)

Source: Water Forever online survey



“Strike a balance - rainfall catchment (dams), desalination, aquifers, recycle greywater and adjust over time to balance cost and availability and environmental impact.”

Shopping Centre display feedback

Interacting with the Environment

A large number of participants across all engagement activities made comments relating to the wider impact of water management decisions. Of particular concern was the effect on the natural environment (ranked highest over all based on the number of comments) and the amount of energy consumed in developing water sources and delivering water. Other particular areas of concern include salinity levels, bushland / tree conservation, depleted wetlands and preservation of cultural (indigenous and non-indigenous) heritage.

There was broad recognition that parks, gardens and other public recreational assets are an important part of the lifestyle in WA and must be preserved in some way even as water consumption is reduced. This needs to be balanced with the concern that current watering practices are wasteful.

Overall, Water Forever online survey participants felt that more could be done to conserve energy use and the environment in delivering water in the future (see Figure 6).

Water Supply Options

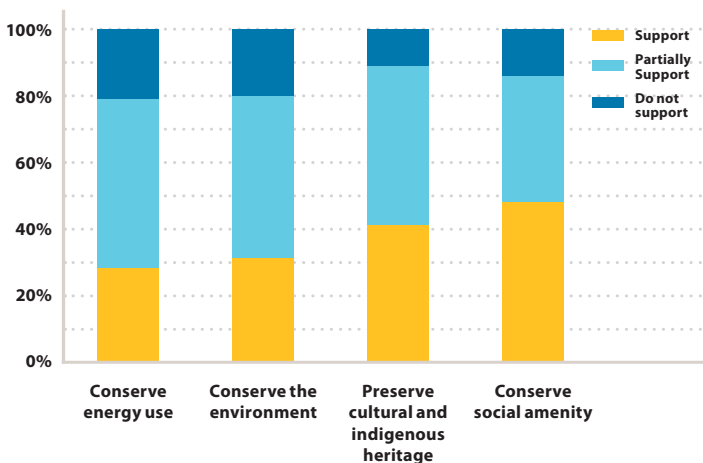
Water supply options were considered around the themes of:

- “Conserve” – conserving the natural environment and minimising the impact of infrastructure delivery required to provide essential services;
- “Create” – looking at opportunities to create new water and wastewater services to meet the community’s needs; and
- “Connect” – connecting communities to water sources and delivering safe and reliable water, wastewater and drainage services.

Conserving the environment (figure 6.)

Source: Water Forever online survey

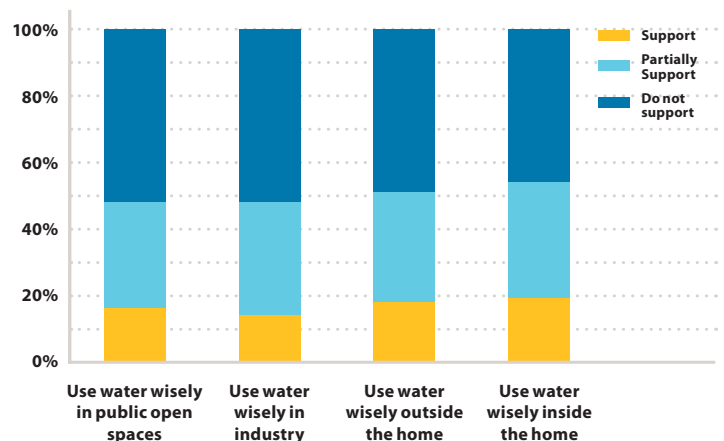
To what extent do you support the statement that Water Corporation is doing enough to:



Water conservation (figure 7.)

Source: Water Forever online survey

To what extent do you support the statement that as a community we are doing enough to:



“We support renewable energy sources to deliver/ desalinate water including new technology i.e. wave, wind, solar.” Shopping Centre display feedback

CONSERVE

Water conservation and efficiency were priority themes for Water Forever participants across all engagement activities, with efficiency of in-home use the most frequently mentioned issue. Personal accountability was demanded – eg. turning off taps, using dual-flush toilets – though many were concerned that others in the community would not follow.



A key general theme is that water conservation must occur across the whole “system”, including across non-traditional boundaries such as that between bore and scheme water users. Participants believed industry water use was generally wasteful. The perception of a double standard emerged (contrast home-use regulations and lack of controls in industry use).

Water Forever online survey participants thought much more could be done to conserve water across all sectors (see Figure 7).

CREATE

An area of strong interest and concern in the community is decisions about future water sources. Developing more water recycling for industrial use received almost universal support across all engagement activities.

Further water efficiency measures including more rainwater tanks were strongly supported with many participants supporting this as a mandatory requirement in all homes. While some industry organisations believed in-home sources to be relatively low yield and high cost, they remain very popular in the wider community.

The feedback also indicated that the community wishes to explore smaller, more localised source options, in particular those which involve water recycling. There was significant interest in and support for greywater systems to divert used water to toilets or onto gardens, notwithstanding concerns raised by many around the cost, effectiveness and health issues with such methods.

Those who were aware of groundwater replenishment (including the trial currently under way) were generally supportive of the concept although a reasonable number required more information.



There was some support for more desalination plants, particularly through the Shopping Centre display, though an equal number of comments recognised cost and energy intensity issues associated with desalination. At the Options Workshop, there appeared to be acceptance that desalination would play a role in our water future, but participants did not want Perth to become dependent on it, as the only solution.

The development of more garden bores was the most evenly-split issue of all, indicating mixed preferences or understanding of the role garden bores should play in the future. Community concerns mainly related to the perceived detrimental impacts on wetlands, groundwater levels, water pollution, salinity and overall sustainability. However, consistent with the “local sources” preference, participants urged exploration of local recycling and bores – though the benefits and implications of these options were less understood.

Support for new ground (North West, Jandakot, Jurien-Gingin) and surface (Brunswick Dam) water sources was also split. There appears a general sense amongst the respondents indicating “Do Not Support” that these sources are likely to be increasingly unreliable, not to mention the perception that groundwater use causes environmental degradation.

“I think big business need to take responsibility and not leave it to the little old ladies taking their buckets of washing water out onto the garden.”

Shopping Centre display feedback

Questions were raised about the accuracy of the predicted amount of groundwater available in the future.

While bringing water to Perth from the State’s north west has been taken off the agenda, comments from community members indicates it remains a popular option for some.

With respect to source criteria, participants at the Options Workshop were asked to select their priority criteria for choosing new sources from a list of 10. The result

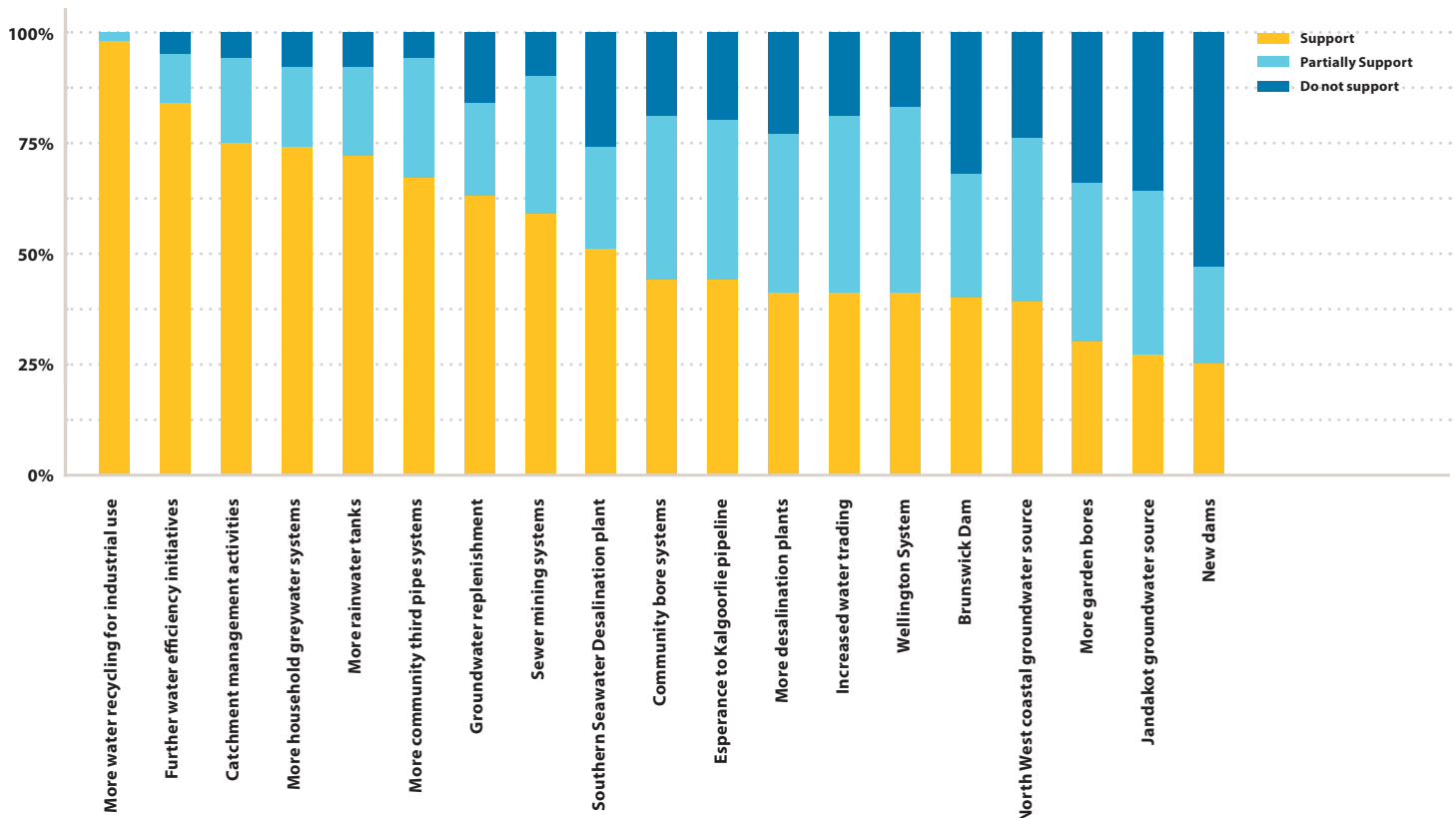
indicated a preference that sources should be developed to minimise environmental impact (first ranked criteria), while maximising yield reliability (second). Reliability should be further enhanced by increasing source diversity, including the introduction of recycling for industry and drinking (via groundwater replenishment) and community-scale local sources.

Figure 8 outlines online survey participants’ support for future water source options.

Water Sources (figure 8.)

Source: Water Forever online survey

To what extent do you support the expansion/development of:



“Just go ahead and begin implementing planning and policy for water recycling... Be bold leaders and administrators. Take the hard decisions now! Future generations will thank you.” *Shopping Centre display feedback*

CONNECT

Based on the Water Forever online survey, there was general support (65 per cent support 27 per cent partially support) for the proposed expansion of the current wastewater system which includes expanding the three major wastewater treatment plants and building two new treatment plants at Alkimos and East Rockingham by 2020.



79 per cent of respondents supported the recharge and reuse of drainage and stormwater locally where possible. There were some concerns however about the technical or financial capacity of local government to take on more responsibility in this area.

Water Corporation’s Role

As part of the consultation process, the Water Corporation gauged the community’s views on our planning and role in the future.

The level of confidence that the Water Corporation is adequately planning for Perth’s future water needs was reasonably strong (46 per cent of online survey participants supported this statement; 48 per cent partially supported it). Further, a number of comments across various forms called for bold leadership by the Corporation to generate alignment and momentum around reducing water use.

A significant number of comments were made concerning the approach to water planning.

Key themes highlighted included:

- Integration with land planning – the need to adopt a holistic approach. This view was especially prevalent at stakeholder events such as the Stakeholder Forum and Conservation Council workshop.
- Confidence in long term planning – some concern was expressed, particularly in the Stakeholder Forum about the reliability of very long-term planning approaches. Interestingly, the community are highly supportive of long term water planning.
- Sustainability - there was a variety of comments on the topic of “sustainability”, reflecting breadth in use of the term. Many urged a genuine sustainability orientation in water planning and management, with some – particularly younger participants – emphasising “environment before economics”. Others used “sustainability” as a means of expressing their concern that the lifestyle and amenity of Perth and surrounds be preserved for the long-term benefit of the community.
- Regulatory approach - comments around regulatory approach primarily focused on the need to remove inter-agency “red tape”. One stakeholder suggested that “consensus, not approvals” be sought for water source decisions. Other comments focused on the need to put in place the appropriate licensing and restrictions to prevent excessive water use.

- Pricing and funding - A very common theme, accounting for 222 comments (fourth overall). While pricing is traditionally a function of cost to deliver, the vast majority of pricing-related comments gathered through Water Forever urged higher prices for water to reflect scarcity and drive water efficient behaviour. Many participants simultaneously recognised the need for an affordability safety net.
- Private sector participation - a small amount of interest in this topic, with comments split between those in favour of more private sector involvement and those wanting to see more responsible use of water by private sector operators (eg land developers, industry).
- Research and development - many participants across all forums saw technology and investment in R&D as a key lever to reduce water use and improve the management of the water cycle. There was a big emphasis on water saving devices and a number of calls for increased and more effective funding mechanisms.
- Community education - along with pricing, this was recognised as the best lever to influence reduced water consumption. Many participants felt that others were not taking water conservation seriously. The youth forum and schools tended to advocate more radical approaches to education, such as rallies and public meetings.

Water related problems

50 km
making
rough
past on
miles.

Not enough
education
for Adults

Not
enough
education
for Adults

Showers

ecosystem
stability

Eutrophication

Neglected
Dores

Immigrant
Role

unity

Salinity

People
refuse to
comply with
water
conservation

Industry
growing

Greedy
People

Adventure
World.

Whether
the people
of Aus will
ever agree
-Recycled
Drinking.

House hold
appliances

Teenager
Stubborn
Small

Tourism
/
waterparks

Wetlands
building on
wetlands, fill
them in

is happenin
these

WHERE TO FROM HERE?

The feedback from the community engagement phase will be used in the development of a draft plan for the delivery of water services over the next 50 years.

WHERE TO FROM HERE?

“Community education and spreading of awareness is vital to spread the message of what the Water Corporation is doing about the issue of the water shortage... If we (the community) had more knowledge of the positive effects of these alternatives they would be more readily accepted.” Youth forum

The Water Corporation extends a big ‘thank you’ to all those who contributed to the “Have Your Say” phase to ensure that our long term planning reflects community views in the delivery of a sustainable water service for the future.

It is evident from the feedback received that community sentiment reflects a need for change in the way we all use and value water. Personal responsibility is paramount and we all have a role to play in designing our water future. As an industry leader, the Water Corporation will continue to engage with the community and align our plans to meet changing community expectations. We will continue to seek community input and involvement and share information on future options as they are developed.

The feedback received from the “Have Your Say” phase will be integrated into the technical, social, environmental and economic considerations in developing the water service delivery options for the next 50 years. The key options validated through the community feedback process will be further investigated and assessed to make sure that they are robust and viable in the long term.

The Water Forever Directions Paper due to be released in February 2009, will provide further opportunities for the community to comment on the principles and preferred options for a long term integrated approach to water, wastewater and drainage.

For further information on the Water Corporation’s 50 year plan please visit www.watercorporation.com.au/waterforever



DISCLAIMER

The Water Corporation is committed to quality service to customers, including the provision of reliable data in this document. This Community Engagement Report is intended to reflect the feedback from the community on the Water Forever Options Paper published in April 2008. It does not represent the policy of the Water Corporation or the Government of Western Australia.

Copies are available by phoning 13 10 39 or visiting www.watercorporation.com.au/waterforever.

This information is available in alternative formats on request.

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REFLECTIONS
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