

IPWEA Sustainability Strategy

April 2013 Update

The second of IPWEA's ten Key Strategic Actions for 2012/13 is to 'adopt a Sustainability Strategy, identify and commence initial actions'. This comes under the Strategic Objective of 'provide leadership'. This report summarises progress to date and current initiatives.

Background

Dr Stephen Lees is IPWEA's National Director Sustainability. The position is part time, averaging two days per week, and is supported through funds provided by ACELG.



The key initial task of the position was to develop a national Sustainability Strategy for IPWEA. This was pursued by commencing and progressing a number of promising actions which, if worthwhile, have become actions under the strategy that was adopted by the National Board in February. Progress made on each action is briefly noted below, grouped under the first four of IPWEA's Strategic Objectives.

Build Capacity

Actions being pursued under this Strategic Objective aim to make available a range of useful tools that will help public works and local government professionals achieve better sustainability outcomes.

Climate change component in NAMS.PLUS

A Federally-funded climate change adaptation project managed by the LGA of South Australia has developed a model to predict the impact of projected changes in average temperatures and rainfall on the useful life of roads in the southern half of Australia. The model is to be made available by incorporating it into the NAMS.PLUS program as an option. The necessary modelling work and additional features in NAMS.PLUS are now being finalised. Workshops will be held in Adelaide, Perth and Melbourne in May and June to introduce the climate model option and how it can be used, funded by the adaptation project.

Pilot application of sustainability rating tool to local council road maintenance programs

IPWEA is working closely with the Infrastructure Sustainability Council of Australia (ISCA) (until recently called Australian Green Infrastructure Council) on a pilot project to apply ISCA's IS (infrastructure sustainability) rating tool to assess the sustainability of local council road management activities. After applications were invited and assessed, Redland City Council in Queensland and Launceston City Council in Tasmania were selected as the two pilot councils.

IPWEA's National Sustainability Director is now an IS accredited professional, able to undertake assessments using the IS tool. He is working alongside staff of the two councils to apply the rating tool and will negotiate with ISCA on any required changes to the rating tool for operational use.

Each council is being visited three times for successive assessment iterations as the rating tool is customised to suit the assessment of local council roads management. The initial visits were conducted in late January, with the National Sustainability Director accompanied by ISCA's Technical Director, Rick Walters. The third and final assessments will be completed this month. An interim project report is due in May. The Australian

Centre of Excellence for Local Government (ACELG) has provided a grant of \$15,000 to meet the pilot's costs.

Canute sea level rise predictor

Canute is a web-based sea level rise calculator recently released by CSIRO's Antarctic Ecosystem Cooperative Research Centre (ACECRC). It enables local council staff and others working in coastal areas to easily allow for projected sea level rise when setting levels of new coastal infrastructure or estimating the likelihood of sea water flooding of existing infrastructure. An article outlining *Canute*, and how it can be used, was published as a blog on the IPWEA website on 7 October 2012 (630+ views which indicates high interest). In January 2013 ACECRC updated some data used in *Canute*. The effect of the data update on the computed sea levels will be checked and advice provided to IPWEA members on its significance.

Climate change adaptation planning and decision support tool

Although most local councils have now assessed and prioritised their climate change risks, few have taken the next step of developing and implementing adaptation plans, in part because there is no agreed methodology for doing this. However two recently completed projects, one for the Hunter Valley and Central Coast of NSW and the other for southeast Melbourne, developed a comprehensive adaptation planning and decision-making approach that provides a definitive methodology. When both final project reports become available shortly, IPWEA will help with their dissemination and the uptake of the methodology.

Climate change interim guidance practice note

Engineers Australia's Australian Rainfall & Runoff (AR&R) is the de-facto standard for flood and stormwater design. But its design data and procedures are based on historical weather records that, because of climate change, are no longer a reliable predictor of future conditions. This was a key reason for AR&R is being updated in a \$20M project already in progress for almost a decade. But until the update is completed there is no definitive guidance to public works professionals and other practitioners on how to allow for the projected changes in rainfall intensities and other parameters when undertaking flood/ stormwater designs/analysis.

To meet that need it had been proposed that IPWEA publish a practice note, based on published findings and expert advice, providing interim guidance on the best approaches currently available for different parts of Australia. However on the basis of information recently provided by the AR&R revision team that Engineers Australia may shortly issue such interim advice, any IPWEA Practice Note on the same topic would likely create confusion amongst practitioners and so is no longer proposed. The situation regarding the proposed interim advice is being followed closely with a view of informing IPWEA members and its network as soon as it is published.

Enhance Networks

Actions being pursued under this Strategic Objective aim to inform, connect with and disseminate to IPWEA members valuable knowledge and information on sustainability.

Public Works Professional

Technical input and review have been provided to feature articles being written for IPWEA's Public Works Professional magazine. One such article was focussed on three guideline documents on climate change and coastal management released late last year by Engineers Australia's National Committee on Coastal and Ocean Engineering.

Website

IPWEA's web site has a Sustainability Community of Practice page, with sections for announcements, industry news, upcoming events, sustainability links, discussion forums and sustainability blogs. This is monitored and material posted, where appropriate. Now that various sustainability actions are underway it is intended to make greater use of the sustainability web page to seek inputs and disseminate useful information.

For example, a blog was posted last December seeking good examples by local councils of climate change adaptation initiatives. This was to support a project by the National Climate Change Adaptation Research Facility (NCCARF). The blog yielded two responses from academics, but none from local government professionals. . One was from Paul Bateson from the University of Canberra who provided a link to the IKEN forum website with Australian adaptation examples. A second response was received from Associate Professor Heather Zeppel of the University of Southern Queensland. She included a copy of a recently published paper by her on local adaptation responses in climate change planning in coastal Queensland. Both references were forward to NCCARF for its review and consideration.

National and State Conferences

Another role of the National Sustainability Director is to write and present papers on topical sustainability issues at national and state IPWEA conferences, and also to encourage other with an interest in sustainability to do likewise. Two abstracts for conference papers have been written on the current pilot project to apply the IS rating tool to assess the sustainability of local council road management activities. The abstracts have been accepted, with the papers to be presented to IPWEA's 2013 National Conference in Darwin in August, and Engineers Australia's Society for Sustainability and Environmental Engineering 2013 conference in Canberra in September.

Engage Partners

The actions being pursued under this Strategic Objective aim to effectively engage with our strategic partners to help achieve mutually-shared sustainability objectives.

State Divisions

In October 2012 the National Director Sustainability met with members of the IPWEA Victoria Division in Melbourne - Anne Gibbs, David Powell, Vicki Shelton, Jane Waldock, Claude Cullino and Geoff Glynn – in order to better understand sustainability issues of concern in that division. Further meetings with members and boards of other state divisions will be held when suitable opportunities arise.

Other Associations

In the past quarter meetings have been held, and contact established or maintained, with a range of sustainability focussed organisations, including Australian Green Infrastructure Council (now ISCA), Melbourne Water, NCCARF, ACELG, Sydney Coastal Councils Group (SCCG), Roads Australia and the NSW Office of Environment and Heritage.

Research Organisations

In order to be able to advise IPWEA's members and networks on the latest research findings and sustainability tools, contact is maintained with leading researchers in CSIRO, Bureau of Meteorology, universities, ARRB, NCCARF and the Australian Climate Change Adaptation Research Network for Settlements and Infrastructure. Their published reports are reviewed for their relevance and value to local government public works professionals.

Provide Leadership

The actions being pursued under this Strategic Objective aim to provide leadership and representation in order to positively influence sustainability policies and industry practices relevant to local government and the wider public works sector.

Represent IPWEA

All opportunities are taken to represent IPWEA and its membership at industry forums, seminars and conferences, to raise awareness of IPWEA and highlight the achievements/challenges of public works professionals. In the past quarter this has involved attending an Engineers Australia AR&R revision seminar in November and a meeting with NCCARF and ACELG representatives in early January to discuss research collaboration opportunities.

Influence Industry Direction

IPWEA can help shape government policies by making submissions and comments on draft reports. It can also assist in improving the sustainability of industry practices by contributing to the development of sustainability tools and guidelines. A recent example was the opportunity to review the draft reports of the SCCG-managed project *Assessment and Decision Frameworks for Seawall Structures*, which will help local councils evaluate the robustness and condition of existing small seawalls of unknown construction, and assess possible upgrade options, in the face of rising sea levels.

More information on IPWEA's Sustainability Strategy and Initiatives can be obtained by contacting:

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