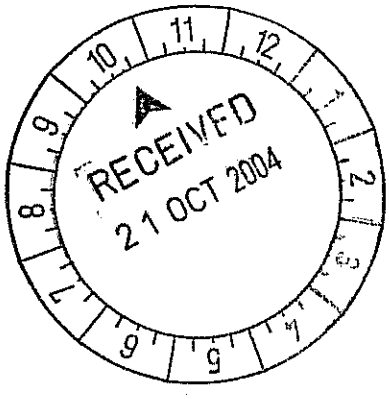
Department for Planning and Infrastructure
Government of Western Australia

Sustainability

Your ref:
Our ref:

Enquiries Mike Mouritz (92168740)

Mr Watkinson
Inquiry on Urban Water and Wastewater Pricing
Economic Regulation Authority
Level 6 Governor Stirling Tower
197 St Georges Terrace
PERTH WA 6000



Dear Mr Watkinson

Issues Paper Submission

Thank you for providing the Department for Planning and Infrastructure with the opportunity to comment on the 'Inquiry on Urban Water and Wastewater Pricing Issues Paper'.

In particular, we note the following points made in the paper:

- regulation of the price of water does promote water conservation, but that for equity reasons government's generally prefer restrictions on watering rather than higher prices (Section 4.1);
- water supply/demand is a driver for the Water Corporation's capital investment expenditure (Section 6.3.2);
- the range of approaches currently used to address the shortage of water i.e. water restrictions, the rebate program, community education and sliding tariffs (Section 7.1.1);
- the most important determinants of scheme water demand include the number of people in a household, size of gardens and lawns, use of bores and fittings and equipment in use (Section 7.1.1);
- the demand for water is price inelastic (Section 7.1.1); and
- a high percentage of water is used for basic non-discretionary activities (Section 7.1.1).

Further we note that the review excludes issues related to drainage/stormwater management and pricing.

We make the following comments within the context of the recently released draft strategy for Perth Network City: community planning strategy for Perth and Peel (a copy of which is attached).

In this regard we wish to draw your attention to two important topics. These are BASIX/METRIX and drainage/stormwater.

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The Department for Planning and Infrastructure, on behalf of the Western Australian Planning Commission's Sustainability Committee and the Sustainability Roundtable's Sustainable Building and Land Development Partnership Group, is currently developing approaches to moving towards more sustainable outcomes that can be achieved within the planning system. An outcome that is being given priority attention is a reduction in potable water consumption. The Water Corporation is a representative on the Partnership Group.

The Department is initiating a feasibility study (attached) to consider the merits of introducing BASIX (Building Sustainability Index) in Western Australia. BASIX is an interactive web-based tool designed by the Department of Infrastructure, Planning and Natural Resources, (DIPNR) NSW to assess performance of residential development against targets for water and energy efficiency set by the State government. In NSW, new homes must be designed to achieve a 40% reduction in potable water consumption compared to existing dwellings of the same type. The 40% reduction can be achieved through the adoption of a wide variety of measures at all stages of the planning cycle i.e. site selection, concept and detailed design, construction and building operation and management. Measures include water-wise landscaping, use of rainwater tanks and pool covers, installation of grey-water systems and water-wise fixtures and the use of water efficient appliances.

The BASIX web-site can be accessed at http://www.iplan.nsw.gov.au/basix/

You will note from the attached scope of work for the feasibility study that we are also examining the possibility of working with DIPNR to expand the tools capability from the local to be applied at a wider special scale i.e. for assessing subdivision and/or Town Planning Schemes (TPS). This tool is currently referred to as METRIX.

Since the demand for water by households is not very price sensitive, the use of other demand management approaches is considered prudent. The BASIX system mandates a reduction in potable water demand while retaining elements of choice for builders and households.

In addition to the benefits of achieving reduced potable water demand without the need for higher water prices, the adoption of BASIX/METRIX in areas where there is greenfields residential development, or in areas where there is significant in-fill, would also allow for lower capital investment expenditure on water and stormwater infrastructure.

While we acknowledge that this review does not have the issue of stormwater/drainage rates as part of its terms of reference, we would assert that it is essential that the review have this issue within its frame of reference.

Further, we point to the equally important matter of management of stormwater/drainage from a water quality point of view. At present no adequate management or service fee/rate has been developed to address the long-term management of stormwater/drainage water quality within the urban context.

Without such a regime in place, the long-term usefulness of the resource is diminished and the quality of the receiving environmental either wetland, river, ocean or aquifer continues to be threatened.

We therefore encourage the review to consider these wider resource management issues so that outcome of the review does not adversely affect the future management of stormwater/drainage.

The Department suggests that in addition to demand management strategies, consideration should be given to augmenting supply from alternate sources such as stormwater and grey-water. Pricing mechanisms or other incentives that promote capturing these water sources both on-site (rainwater tanks, grey-water systems) or at a broader spatial scale (via the drainage system or via community scale groundwater systems) should be considered.

If you require further information about the BASIX feasibility study, please contact Mike Mouritz, Executive Director, Strategic Policy and Evaluation on 9216 8740.

Yours sincerely

Greg Martin
Director General

18 / 10 / 2004

WESTERN AUSTRALIAN REVIEW OF BASIX AND METRIX PRE-FEASIBILITY AND FEASIBILITY STUDY SCOPE OF WORKS DRAFT FOR DISCUSSION

1. Background:

BASIX is an interactive web-based planning tool designed to assess the performance of residential development against targets for water and energy efficiency set by the NSW Government. From July 1 2004 in Sydney and from 1 July 2005 in other parts of NSW, new homes must be designed to achieve a 40% reduction in potable water consumption and a 25% reduction in greenhouse gas emissions compared to existing dwellings of the same type.

A BASIX assessment will be included as a mandatory component of the development approval (DA) process. Proposals for DA's must be accompanied by a BASIX Certificate, demonstrating that the targets have been met, before they can be assessed and consent for a building license granted.

The extension of BASIX into a broader spatial tool for the assessment of planning and land development/subdivision applications is currently under preliminary investigation in NSW.

Both BASIX and a broader spatial tool have/are being developed by the Sustainability Unit within the Department of Infrastructure, Planning and Natural Resources (DIPNR) New South Wales.

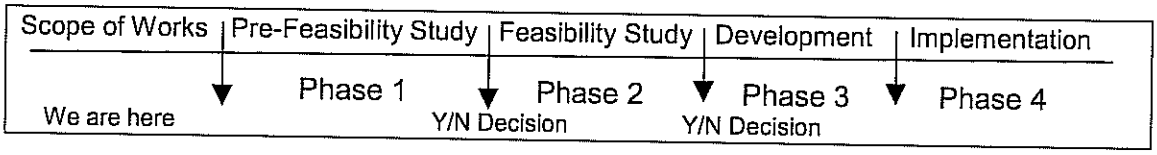
An inter-state meeting for state government officers was held in Sydney in May to demonstrate the application of BASIX within the NSW planning system and discuss whether further consideration should be given to assessing the advantages and disadvantages of adapting the tool for use in other States.

Subsequent to this, a number of the key Western Australian state government agencies met to discuss whether BASIX could be a useful tool in the WA context, and if there was merit in more closely examining the tool to determine which aspects would require adjustment to suit Western Australian (WA) conditions and its workability within the WA planning system.

As an outcome of these meetings, it was agreed that a phased approach would be taken to review the existing BASIX tool, assess the potential for its implementation in WA and to discuss co-operation about the development of a broader spatial tool.

The first phase (Phase 1) is a pre-feasibility study that will consider critical issues. If these issues cannot be satisfactorily resolved or a process defined for their resolution, there will be no further consideration of the potential to implement BASIX or a broader spatial tool in WA.

If the critical issues can be resolved in Phase 1, the feasibility study (Phase 2) will be initiated. Phase 2 will provide sufficient information and analysis to enable a decision to be made about the suitability and viability of adopting BASIX in WA and the further development of a broader spatial tool. If the adoption of BASIX is determined to be worthwhile and agreed to by Government, the development of the tool (Phase 3) and implementation (Phase 4) would follow.



The objectives, outputs and tasks for the pre-feasibility and feasibility study as they relate to both BASIX and a broader spatial tool are set out in the sections A and B:

Section A Phase 1 Pre-feasibility study (page 4)
Section B Phase 2 Feasibility Study (page 7)

Information about resources, expenditure and stakeholders provided below is common to both the pre-feasibility and feasibility phases.

2. Resources

The Phase 1 Pre-Feasibility Study and Phase 2 Feasibility Study will be prepared by consultants or a dedicated project officer working closely with other State agencies. The consultant or project officer will be appointed by the Department for Planning and Infrastructure's Strategic Policy and Evaluation Division. Resources are available for the appointment of the project officer/consultant. The consultant/project officer will be managed by the Director, Sustainability and will work closely with people within other agencies specifically identified to assist with the completion of the feasibility study. The terms of reference and the final outputs of the consultancy will be signed off by the BASIX Senior Officers Group following receipt of input from the WAPC Sustainability Committee and the Sustainable Building and Land Development Partnership Group.

Consultation with, and assistance from, the NSW Department of Infrastructure, Planning and Natural Resources will be required during the preparation of the pre-feasibility and feasibility study. Agreement will be reached with the Department about the nature of their participation and associated resourcing requirements. It is envisaged that the agreement will be formalised in a Memorandum of Understanding.

3. Estimated Expenditure

The cost of completing the BASIX pre-feasibility is estimated at less than $9 000. The estimated cost of the feasibility study will be determined during the pre-feasiblity study, but is not expected to exceed $50 000. Contributions will be obtained from the following sources:

Agency	Pre-Feasibility
DPI/WAPC	< $9 000
Water Corporation	In kind contribution
SEDO (Office of Energy)	In kind contribution
Western Power	In kind contribution
Alinta Gas	In kind contribution
Department of Housing and Works	In kind contribution
Department of Environment	In kind contribution

4. Key Stakeholder Partnerships

The pre-feasibility and feasibility study will be prepared in consultation with key stakeholders. Input will be sought and formal involvement processes will be established during subsequent phases (should these be approved). Stakeholders include the building and construction industry, local government and State agencies. Five main forums for consultation are or will be established.

A strategy for inter-acting with stakeholders will be developed at the start of the pre-feasibility study and the feasibility study. In addition to creating opportunities to exchange view and share information, the consultation strategy would also seek to provide stakeholders with reassurances about the potential compatible roles for BASIX and existing tools such as FirstRate and Smart Water Mark and information about their benefits and limitations.

4.1 Inter-agency Senior Officers Group (SOG)

Current member agencies include the Department for Planning and Infrastructure Sustainability Directorate; Department of Housing and Works; Sustainable Energy Development Office; Water Corporation and LandCorp.

Other agencies to be invited include Western Power, Alinta Gas, Department of Environment, Department of the Premier and Cabinet Sustainability Policy Unit and Department of Local Government.

It is envisaged that the Senior Officers Group will be the core group for assisting with the feasibility study including research and data collection.

4.2 WAPC Sustainability Committee and Sustainable Building and Land Development Partnership Group.

The Sustainability Committee and the Partnership Group, a sub-committee of the Sustainability Roundtable, are established groups (refer Appendix 1) that represent the development and building and construction industry as well as responsible agencies, and work closely and cooperatively about their common agendas.

4.3 Local Government

This includes the West Australia Local Government Association (WALGA), local authorities, and members of the Sustainability Roundtable's Local Government Partnership Group.

4.4 Professional associations and other key stakeholders

An approach to consulting with key stakeholders and their associations - those not currently represented in either the WAPC Sustainability Committee or the Sustainable Building and Land Development Partnership Group - will be established.

These stakeholders include:

- professional bodies such those under the auspices of The Australian Council of Building Design Professions (BDP) i.e. Association of Consulting Architects Australia, Association of Consulting Engineers Australia, Australian Institute of Landscape Architects, Australian Institute of Quantity Surveyors, Engineers Australia, Royal Australian Institute of Architects and Planning Institute of Australian, as well as other industry associations such as Institution of Engineers Australia.
- community groups such as the Conservation Council; and
- academia.

4.5 DPI intra-agency group

A process to allow for relevant players within DPI to contribute to the process has been established. This group includes Statutory Planning, Revitalisation/Urban Design, Information Services and others. It is important that staff involved with reviews, such as R-codes and Model Scheme Text reviews, be closely involved.

5. Timing

The pre-feasibility study is expected to commence in mid-September 2004 and to be completed by the end of October 2004. Phase 2 would commence once a decision regarding Phase 1 has been obtained. Phase 2 is expected to take about 5 months.

6. Process for decision-making

The report and recommendations arising from the Phase 1 pre-feasibility study and the subsequent Phase 2 feasibility study will be considered by the WAPC's Sustainability Committee and the Sustainable Building and Land Development Partnership Group.

These groups would then provide their advice to the Minister for Planning and Infrastructure and to the Minster for Sustainability (currently the Premier) via the Sustainability Roundtable for their decision regarding proceeding with the Phase 2 feasibility study and subsequent phases i.e. development and implementation.

SECTION A
PHASE 1 PRE-FEASBILITY STUDY

1. Objectives

The pre-feasibility study has two broad objectives – one relates to BASIX and the other to the development of a broader spatial tool.

- **BASIX**: The objective of the pre-feasibility study is to determine if there are any critical constraints specific to Western Australia that would prevent further consideration of the potential to implement BASIX in the state; and
- **Broader spatial tool**: The objective of the pre-feasibility study if to determine the benefits of, and identify any critical constraints to, co-operatively developing a broader spatial tool with the Department of Infrastructure, Planning and Natural Resources, NSW.

2. Outputs

2.1 BASIX outputs

The output of the pre-feasibility study would be a report that includes a recommendation to proceed or not to proceed with a feasibility study for BASIX.

The pre-feasbility study would broadly report on:

- gaps in WA's current planning system that prevent the achievement of domestic water and energy efficiencies or targets;
- strengths and limitations of existing voluntary water and energy efficiency initiatives to enforce the achievement of both water and energy efficiency targets;
- the potential for BASIX to strengthen the planning systems ability to achieve domestic water and energy efficiency targets and to operate in a complementary way with the existing voluntary initiatives;
- current federal and state initiatives that may supersede the need for BASIX or a similar tool;
- the advantages and disadvantages of introducing water and energy consumption targets for homes in Western Australia; and
- a budget estimate of the costs of undertaking the feasibility study as it relates to BASIX and an indication of the total costs of adopting BASIX in Western Australia.

2.2 Broader spatial tool outputs

The output of the pre-feasibility study would be a report that includes a recommendation to co-operatively develop a broader spatial tool with the Department of Infrastructure, Planning and Natural Resources, NSW and/or others or not to pursue development of such a tool.

The pre-feasibility study would broadly report on:

- the impetus for developing a tool that could be used at a broader scale that would allow measurement against targets for a greater number of criteria;
- key criteria that are quantifiable and could be included in such a tool;
- the advantages and disadvantages of formalising and enforcing existing standards or targets through such a tool and of developing targets where these do not already exist;

- the advantages and disadvantages of developing the tool in co-operation with the Department of Infrastructure, Planning and Natural Resources, NSW and/or partners in other states;
- an assessment of what Western Australia would contribute to the development of a broader spatial tool; and
- a budget estimate of the costs of undertaking the feasibility study as it relates to the broader spatial tool and an indication of the total costs of developing and implementing the tool in Western Australia.

3. Tasks

To meet the objective and deliver the outputs, the following tasks require completion.

3.1 BASIX tasks

3.1.1 Policy context review

The pre-feasibility study will include an assessment of the extent to which BASIX's introduction would be supportive of, conflict with, or be superseded by current and proposed policies and strategies. These include:

- Building Codes of Australia's Minimum Energy Performance Standards (MEPS),
- National Framework for Energy Efficiency;
- National Water Conservation Rating and Labeling Scheme;
- Western Australia's State Sustainability Strategy;
- Western Australia's State Water Strategy;
- Western Australia's State Greenhouse Strategy;
- Energy Policy (Parliamentary Inquiry into Energy Efficiency and Renewable Energy in WA and improvements to Minimum Energy Performance Standards (MEPS) for appliances); and
- SEDO and Water Corporation policies and programs.

BCA: NSW is not a signatory to the BCA energy efficiency provisions, WA is. Full consideration must be given to possible changes to the Australian Building Codes Board (ABCB) through the Productivity Commission review of Building Regulation Reform, future sustainability provisions within the BCA and staged amendments to improve energy efficiency performance.

MEPS: The current State Parliamentary Inquiry into Energy Efficiency and Renewable Energy in WA is reviewing energy efficiency within State agency programs, including within the built environment.

The National Framework for Energy Efficiency is considering improvements to Minimum Energy Performance Standards (MEPS) for appliances that will achieve higher performance standards, thus hard wiring efficiency gains.

3.1.2 Statutory planning context review

The pre-feasibility study will consider the reasons why the delivery of water and energy efficiency gains are not being achieved, or cannot be achieved, with current policy and regulatory planning tools of the Western Australian Planning Commission and local government. Gaps that may exist in the current system will be identified. In particular consideration will be given to:

- whether the current system allows for the enforcement of water and energy efficiencies;

- possible limitations of discrete institutional responsibilities e.g. local government, and Department of Housing and Works roles under the Building Code of Australia and the Building Regulations 1989;
- local governments' capacity to be implementing agents for the achievement of water and energy efficiencies or targets.

3.1.3 Water and energy targets

The embedding of BASIX within the statutory planning system in Western Australia would only be feasible if specific water and energy targets for domestic consumption are agreed at a State or regional level. The State Water Strategy has set an overall per capita per annum water consumption target.

At the pre-feasibility stage, the advantages, disadvantages and risks associated with developing and agreeing targets should be contemplated. An assessment of the feasibility of setting targets should be done in consultation with:

- Office of Energy and Sustainable Energy Development Office;
- Water and Rivers Commission and Department of Environment;
- Water Corporation;
- Western Power;
- Alinta Gas.

If these issues can be satisfactorily addressed and the pre-feasibility recommendation is to proceed, Phase 2 will be initiated.

3.2 Broader spatial tool tasks

3.2.1 Motivation for developing a broader spatial tool

The pre-feasibility study would set out the reasons for and benefits of developing a tool that could assist in planning for more sustainable outcomes. In determining the reasons and benefits, the views of a broad set of stakeholders must be canvassed including those of regulators and the regulated.

3.2.2 Quantifiable criteria and targets

- Identify the criteria that could be incorporated into a broader spatial tool;
- Specify where these criteria are currently dealt with within the established planning system, or elsewhere;
- Indicate if there are existing standards and targets for each criterion;
- Where standards and targets do not exist, indicate if development of these standards or targets would be possible; and
- Discuss models for development of a broader spatial tool and identify a preferred model i.e. is a co-operative approach with other states the best approach.

If these issues can be satisfactorily addressed and the pre-feasibility recommendation is to proceed with the development of a broader spatial tool, Phase 2 will be initiated.

SECTION B
PHASE 2 FEASBILITY STUDY

The Phase 2 feasibility study would only be initiated if the recommendations stemming from Phase 1 are that the BASIX feasibility study proceeds and/or the broader spatial tool feasibility study proceeds.

The objectives, outputs and tasks of the feasibility study are set out below.

1. Objectives

The feasibility study has two broad objectives – one relates to BASIX and the other to the development of a broader spatial tool.

- **BASIX**: To determine and evaluate the local requirements for the adoption of BASIX within the WA context and to make recommendations about the feasibility of its adoption; and
- **Broader spatial tool**: To further investigate the development for use of a broader spatial tool in partnership with DIPNR (NSW) and/or others and to prepare a formal partnership agreement between DIPNR (NSW), DPI/WAPC and possibly others for the co-development of the tool.

2. Outputs

2.1 BASIX outputs

2.1.1 A report that specifies the requirements for the use of BASIX in WA including:

- implications for adopting BASIX within the current policy and legislative/regulatory environment and any adaptations that may be required;
- implications for the planning, land development and construction industry, and local authorities;
- implications, including benefits and costs, for new home buyers;
- technical aspects such as NSW data suitability for WA, availability of specific WA datasets (metro and regional), collation of data (both initial and future) and web tool development;
- an assessment of what (information and resourcing) is required from each party/agency involved;
- human resource requirements for the development phase;
- human resource requirements for the implementation phase (including training) and ongoing support;
- costs to develop, implement and maintain the BASIX system in WA,
- costs and an assessment of the incidence of these costs (to whom they accrue i.e. State Government, Local Government, building and construction industry, occupier) associated with the adoption of BASIX to ensure achievement of targets;
- benefits and an assessment of the incidence of these benefits (to whom they accrue) associated with the adoption of BASIX to ensure achievement of targets;
- indicative determination of targets for WA linked to the benefit cost analysis, i.e. adopt targets that provide the greatest net benefit to the state; and
- A recommendation about the viability of introducing BASIX into WA, including indicative timelines for establishment and implementation.

2.1.2 A recommendation setting out institutional and administrative arrangements for developing and implementing BASIX.

2.1.3 A recommendation about the phased introduction of BASIX.

2.1.4 A recommendation on water and energy targets.

2.2 Broader spatial tool outputs

2.2.1 A report that gauges the complexities of incorporating the assessment of the criteria identified in the pre-feasibility study into a quantifiable tool that operates at a broader spatial scale in WA.

2.2.2 A report that recommends a program for the development of a broader spatial tool including a consultation strategy.

2.2.3 A draft partnership agreement with DIPNR NSW (and possibly others) for co-development of a broader spatial tool.

3. Tasks

To meet the objective and deliver the outputs, the following tasks require completion.

3.1 BASIX tasks

3.1.1 Local regulatory environment

Determine issues associated with BASIX within the context of regulatory systems:

- the approach adopted in NSW to incorporate BASIX as a statutory planning and development tool;
- if and how the tool can be linked into WA's statutory planning and development approval (DA) processes, i.e. where it would sit within the planning building approvals systems;
- the context of BASIX within current statutory and planning requirements, i.e. State Planning Policies, Liveable Neighborhoods, R-codes, Town Planning Schemes;
- consider issues associated with verification of design requirements, i.e. occupation certificate as required in NSW; and
- recommend an approach to incorporating BASIX in the WA planning and building approval systems and estimate the resources and costs associated with adoption of this approach.

3.1.2 Assessment of data requirements for energy and water

There are five broad quantifiable datasets within BASIX required for baseline information – energy, water, thermal comfort, landscape and stormwater. The datasets currently within BASIX need to be assessed to determine which are specific to NSW and must be replaced with WA datasets or adapted to meet WA conditions.

For example, data may need to be collected, collated, assessed and benchmarked for: whole of dwelling and per capita consumption of energy and water; dwelling types such as detaching housing, group housing and multi-residential apartments; established and new dwellings; as well as for the various categories outlined in the table below. NSW BASIX indices can be used to assist in generating WA specific indices.

Domestic Energy Consumption	Domestic Water Consumption
Electrical	In-house
Gas	Ex-house
Water heating	Laundry
Space heating and cooling	Bathroom
Refrigeration	Kitchen
Cooking	
Small appliances	
Lighting	
Stand-by	
Peak load times (daily, seasonal and 12 month cycle)	

Other data sets that may be required relate to water quality issues (for supply, reuse and discharge) and energy supply and renewable energy supplementation.

Once it has been established which datasets require replacement or adjustment, the availability of the data and/or resources required to acquire and manipulate the data for use in BASIX must be determined.

Document and assess energy, water, thermal comfort, landscape and stormwater data against the following:

- what information is currently available and who holds or owns it;
- how the data is collected and recorded (database platform);
- what is the spatial coverage and detail of the information;
- can the information for each element be interfaced with different platforms;
- can the information be readily applied to existing BASIX software;
- what is the estimated cost of developing the datasets and importing them into BASIX; and
- resource requirements to access and establish these datasets.

3.1.3 Benchmarks and Targets

Current benchmarks and targets for water and energy should be noted, including those 'internal' to service providers i.e. not within published policies and strategies. Where targets are not available or are deemed inadequate (not consistent with BASIX requirements), the consultant shall provide comment on:

- the process needed to develop targets;
- should targets be phased in, at what level, over what time period;
- should targets be different for different regions; and
- resources and costs associated with determining targets.

A determination of indicative targets for WA linked to a benefit cost analysis, i.e. targets that provide the greatest net benefit shall be given, including assessment of:

- the relative influence of energy and water efficiency actions on the achievement of targets;
- benefit/costs associated with each of the actions i.e. reduction in water and energy use, impact on greenhouse gas emissions etc. versus capital outlays and operating costs;
- actions that have cross or cumulative benefits and costs e.g. a water efficiency action may influence energy use positively or negatively;
- the best combination of building design, fittings and appliance actions to achieve targets taking into consideration the impact on energy and water consumption and association benefit/costs;

3.1.4 Development/construction/operation contribution to achieving mandatory performance

A critical issue identified within the NSW implementation process was the relative influence of actions that occur within each phase of the development/construction/operation continuum on achieving the mandatory performance targets.

Comment shall be made on:

- typical development and construction practices and continuums in WA for each of the development phases; and
- what water and energy efficiency actions/installations are included at each stage of development and identification of the responsible party (developer, builder, homebuyer, renovator) and if and how they can be assessed and verified for compliance.

3.1.5 Web tool development:

Establish how BASIX as an interactive web-based tool could work within the WA context:

- resources and costs involved in its adaptation for WA;
- resources and costs involved in its implementation; and
- resources and costs involved in the on-going running and development of the tool.

Examine the most appropriate and efficient electronic platform for data entry of each application at the lot level:

- Can the property information data sets interface readily with other applications; e.g. Water Corporation's BuilderNet, Local Government / DOLA,
- For multi – unit developments (apartments) can information be entered collectively or does it require separate entry for each apartment (has this not already been resolved in NSW?)
- Consideration should be given to how it could be linked to GIS (i.e. WALIS), and how it could be built into and managed within WA's institutional context.

3.1.6 Implementation and Operation

Assess issues for the implementation and operation of BASIX in WA.

Implementation issues

- Responsible government agency/directorate, and local government;
- Certification and verification at point of occupation;
- Education and Training, skill levels, knowledge of the system,;
- Technical data;
- Technical manuals;
- Lead times and industry adaptability;
- Planning, development, design and construction practice changes;
- Materials, appliance and fittings performance;
- Materials, appliance and fittings innovation and availability;
- Capital cost impact and who pays;
- Industry and community awareness and acceptance;
- Using BASIX, navigating the site and self assessment; and
- Promotion.

Operational issues

- Data input, update and accuracy (urban, localised, regional towns);
- Assessment, certification and approval; and
- Assessment options i.e. deemed to satisfy, performance, innovation.

3.1 Broader spatial tool tasks

3.2.1 Assessment of criteria

- Determine if the criteria identified as part of the pre-feasibility study are criteria that are fairly standard and could be adopted by NSW and other states;
- Determine how consideration is given to these criteria in WA and if this is comparable with the approach in NSW or other states;
- Consider the complexities of incorporating assessment of these criteria in a tool that requires quantification and if this would assist in advancing approvals or if additional complexities would arise.

3.2.2 Program for development

Recommend a program for the development of a broader spatial tool including activities, timelines, resource requirements and a comprehensive consultation strategy. The consultation must include a broad range of Western Australian stakeholders as well as a process for interacting with NSW and other possible parties.

3.2.3 Partnership agreement

Prepare a formal partnership agreement between Western Australia and New South Wales and possibly others for the further development of a broader spatial tool.

NOTE

The Scope of Works has been developed in consultation with the BASIX Senior Officers Group. Comments and feedback has been received from:

- Housing Industry Association;
- Sustainable Energy Development Office;
- Water Corporation;
- LandCorp; and
- Department of Housing and Works.

APPENDIX 1

MEMBERS OF THE WAPC SUSTAINABILITY COMMITTEE

Chairperson: Jeremy Dawkins	WAPC
Members	
Mike Mouritz	DPI
Nicole Hodgson	WA Collaboration
Allison Hailes	WALGA
Marion Fulker	UDIA
Sheryl Chaffer	HIA
Sandra Krupa	DIA
Leon Brouwer	DOE
Peter Newman	Sustainability Roundtable
Rory O'Brien	Planning Institute of Australia
John Collett	Regional Development Council
Verity Allan	Water and Rivers Commission

MEMBERS OF THE SUSTAINABLE BUILDING, CONSTRUCTION AND LAND DEVELOPMENT PARTNERSHIP GROUP

Chairperson: Sheryl Chaffer (HIA)	Sustainability Roundtable
Members	
Mike Mouritz	DPI
Nicole Hodgson (WA Collaboration)	Sustainability Roundtable
Graeme Jones	DHW
John Yeates	LandCorp
Martin Bowman (BBG)	UDIA
Nick Perrignon (Stockland)	Property Council
Gavan Forster	MBA of WA
Peter Scott (Austral Bricks)	Building Products & Manufacturers
Andrew Fairs	SEDO
Mike Hollett	Water Corporation
Bill Grace (GHD)	Sustainability Roundtable
Leon Brouwer	DOE
Jan Starr	Sustainability Roundtable & Local Government

Executive Support for the WAPC Committee and Partnership Group

David Nunn	Director, Sustainability Unit, DPI
Pam Baskind	Principal Policy Officer, Sustainability
Julio Navarrete	Senior Policy Officer, Sustainability