



IPA Infrastructure Guideline

2/04

Infrastructure Charges Schedules

*Incorporating worked examples
and sample calculations*

4 October 2004



Queensland Government

Department of Local Government, Planning,
Sport and Recreation

IPA Infrastructure Guideline 2/04

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For more general information about the *Integrated Planning Act 1997*
visit the website at www.ipa.qld.gov.au

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List of Acronyms

CPI	Consumer Price Index
DSS	Desired Standard of Service
EP	Equivalent Persons
ET	Equivalent Tenements
ICS	Infrastructure Charges Schedule
IDAS	Integrated Development Assessment System
IPA	<i>Integrated Planning Act 1997</i>
IPOLAA	<i>Integrated Planning and Other Legislation Amendment Act 2003</i>
PFTI	Plans for Trunk Infrastructure
PIA	Priority Infrastructure Area
PIP	Priority Infrastructure Plan
QCA	Queensland Competition Authority
RICS	Regulated Infrastructure Charges Schedule
RIP	Roads Implementation Program
SOI	Statement of Intent (for Main Roads)

Terms and Definitions

The definitions in the following section have been included to aid interpretation of the guidelines. Reference should be made to the relevant legislation for statutory definitions.

Additional trunk infrastructure costs (refer to IPA sections 5.1.25 and 5.1.30), means—

- (a) the costs of supplying infrastructure to development that is:
 - (i) inconsistent with the assumptions about the type, scale, location or timing of future development stated in the PIP, or ,
 - (ii) is located wholly or partially outside the PIA, and
- (b) would impose additional trunk infrastructure costs on the infrastructure provider taking into account:
 - (i) infrastructure charges or regulated infrastructure charges levied on the development, and
 - (ii) trunk infrastructure supplied or to be supplied by the applicant in respect of the development.

Desired standard of service for a network of development infrastructure, means the standard of performance stated in the priority infrastructure plan (refer to schedule 10 of the IPA).

Development infrastructure (refer to schedule 10 of the IPA), means—

- (a) land or works, or both land and works for—
 - (i) urban and rural residential water cycle management infrastructure (including infrastructure for water supply, sewerage, collecting water, treating water, stream managing, disposing of waters and flood mitigation); or
 - (ii) transport infrastructure (including roads, vehicle lay-bys, traffic control devices, dedicated public transport corridors, public parking facilities predominantly serving a local area, cycle ways, pathways, ferry terminals and the local function, but not any other function, of State-controlled roads); or
 - (iii) local public parks infrastructure (including playground equipment, playing fields, courts and picnic facilities); or
- (b) land, and works that ensure the land is suitable for development, for local community facilities, including, for example—

- (i) community halls or centres; or
- (ii) public recreation centres; or
- (iii) public libraries.

Establishment cost, (refer to schedule 10 of the IPA), for infrastructure, means—

- (a) on-going administration costs for the infrastructure charges schedule for the infrastructure; and
- (b) for future infrastructure—all costs for the design, financing and construction of the infrastructure and for land acquisition for the infrastructure; and
- (c) for existing infrastructure—
 - (i) the residual financing cost of the existing infrastructure; and
 - (ii) the cost of reconstructing the same works using contemporary materials, techniques and technologies; and
 - (iii) if the land acquisition for the infrastructure was completed after 1 January 1990—the present value of the amount (if any) paid by the infrastructure provider for acquiring the land.

Infrastructure (refer to schedule 10 of the IPA), means land, facilities services and works used for supporting economic activity and meeting environmental needs.

Infrastructure agreement means an agreement about payment for, or the supply of, infrastructure (refer to IPA section 5.2.1).

Infrastructure charge means a charge for an infrastructure network identified in an Infrastructure Charges Schedule (refer to IPA section 5.1.6).

Infrastructure charges notice means a notice requiring the payment of an infrastructure charge (refer to IPA section 5.1.8).

Infrastructure charges plan (refer to schedule 10 of the IPA), means an infrastructure charges plan under the IPA before the commencement of the *Integrated Planning and Other Legislation Amendment Act 2003*, part 2, division 3.

Infrastructure charges register means a register of all infrastructure charges levied by a local government (refer to IPA section 5.7.2).

Infrastructure charges schedule (refer to schedule 10 of the IPA), means a schedule adopted by a local government that states charges for the establishment cost of trunk infrastructure in the local government's area in accordance with chapter 5, part 1, division 4 of the IPA.

Infrastructure provider, (refer to schedule 10 of the IPA), for an application, means a local government that is the assessment manager and—

- (a) supplies trunk infrastructure for development; or
- (b) has an agreement with another entity that supplies trunk infrastructure to the local government area.

Non-trunk infrastructure means development infrastructure that is not trunk infrastructure (refer to schedule 10 of the IPA).

Planning assumptions means the assumptions about the type, scale, location and timing of future urban growth which have informed preparation of the PIP.

Planning scheme means the planning scheme for an area prepared in accordance with the requirements on the IPA.

Plans for trunk infrastructure (refer to schedule 10 of the IPA), means the part of a priority infrastructure plan that identifies the trunk infrastructure network that exists or may be supplied to service future growth in the local government's area to meet the desired standard of service stated in the plan.

Priority infrastructure area (refer to schedule 10 of the IPA), for a local government—

1. "Priority infrastructure area" means the area—
 - (a) that is developed, or approved for development, for each of the following purposes—
 - (i) residential, other than rural residential;
 - (ii) retail and commercial;
 - (iii) industrial; and
 - (b) that will accommodate at least 10 years, but not more than 15 years, of growth for the purposes mentioned in paragraph (a).
2. "Priority infrastructure area" includes an area not mentioned in item 1 that—
 - (a) the local government decides to include in the area; and
 - (b) is serviced by development infrastructure.

Priority infrastructure plan (refer to schedule 10 of the IPA), means the part of a planning scheme that—

- (a) identifies the priority infrastructure area; and
- (b) includes the plans for trunk infrastructure; and
- (c) identifies, if required by a supplier of State infrastructure with a relevant jurisdiction—
 - (i) a statement of intent for State-controlled roads; or
 - (ii) the roads implementation program under the *Transport Infrastructure Act 1994*, section 11; and
- (d) states the assumptions about the type, scale, location and timing of future development on which the plan is based; and
- (e) states the desired standard of service for each development infrastructure network identified in the plan; and
- (f) includes any infrastructure charges schedule.

Refund Agreement means an infrastructure agreement that provides for a local government refunding, through infrastructure charges collected from other users of the infrastructure, to a developer a proportion of the cost of the infrastructure provided by the developer.

Regulated infrastructure charge means a charge for an infrastructure network identified in a regulated infrastructure charges schedule (refer to IPA section 5.1.17).

Regulated infrastructure charges notice means a notice requiring the payment of a regulated infrastructure charge (refer to IPA section 5.1.18).

Regulated infrastructure charges register means a register of all regulated infrastructure charges levied by a local government (refer to IPA section 5.7.2).

Regulated infrastructure charges schedule means a schedule adopted by a local government that states regulated charges for the establishment cost of trunk infrastructure in the local government's area (refer to IPA 5.1.16).

State infrastructure (refer to schedule 10 of the IPA), means any of the following—

- (a) State schools infrastructure;
- (b) public transport infrastructure;
- (c) State-controlled roads infrastructure;
- (d) emergency services infrastructure.

State infrastructure plans means the plans for the supply of State infrastructure in a local government area prepared by the supplier of the State infrastructure.

State infrastructure provider (refer to schedule 10 of the IPA), means a concurrence agency that supplies, or contributes toward the cost of, State infrastructure.

Statement of intent, for a State-controlled road, means a statement about the State-controlled road, including proposals for the provision of transport infrastructure included in the roads implementation program under the *Transport Infrastructure Act 1994*, section 11.

Trunk infrastructure means development infrastructure identified in a priority infrastructure plan as trunk infrastructure.

1.0 Introduction

This guideline has been prepared in accordance with the requirements of the *Integrated Planning Act 1997* (IPA) and sets out how an infrastructure charges schedule must be prepared or amended.

The guideline also provides relevant supporting information and illustrates, through examples, approaches to infrastructure charges schedule preparation.

Readers are reminded that most of the subject matter in the IPA relating to infrastructure is self explanatory and need not be repeated in this document. Therefore, this guideline must be read in conjunction with the IPA. It is also necessary to refer to IPA Infrastructure Guideline 1/04 Priority Infrastructure Plans.

1.1 Prices Oversight

Under the Queensland Competition Act 1997, the Queensland Competition Authority (QCA) is required to monitor and report on the pricing practices of certain 'declared' monopoly or near monopoly State or local government significant business activities.

The retail water and sewerage businesses of the largest 18 local governments have been declared subject to the prices oversight regime by gazette notice by the Premier and Treasurer. Appendix 1 lists the relevant local governments. Declaration by gazette notice provides the Ministers with discretion about whether or not to refer the declared activity to the QCA for a prices oversight investigation. A local government which is subject to a prices oversight investigation retains the right to accept or reject the QCA's pricing recommendations.

The QCA's Statement of Regulatory Pricing Principles for the Water Sector¹ outlines the water pricing principles which the QCA considers relevant to local governments in complying with Council of Australian Government requirements and prices oversight. In the Statement, the QCA draws a similarity between contributed assets and water infrastructure assets funded by water and sewerage infrastructure charges. Appendix 2 summarises the water pricing principles.

The QCA also identifies in the Statement general pricing principles which should underpin all charges for water services (see Chapter 7 of the Statement). The QCA acknowledges that applying the general water pricing principles to a wide range of physical circumstances and organisational settings will potentially result in different pricing structures for water and sewerage among the largest 18 local governments. The aim of each local government

¹ The Statement is available on the QCA website <http://www.qca.org.au/>

should be to devise the most efficient pricing structure which meets their particular circumstances and reflects identifiable and substantial differences in the costs of supply between consumers, consumer classes or geographic areas, while maintaining administrative simplicity.

In the context of any pricing investigation, the Statement indicates the QCA would consider the specific circumstances which apply for a local government's water business, including the likely efficiency gains that may result from a more cost-reflective pricing framework, the costs of obtaining the necessary information and the disadvantages of a more complex pricing structure.

2.0 Preparing an infrastructure charges schedule (ICS)

2.1 Background

An infrastructure charges schedule is part of the priority infrastructure plan, which in turn is part of the planning scheme.

Planning details relating to the provision of trunk infrastructure, for example, desired standards of service and plans for trunk infrastructure, are contained in the main body of the priority infrastructure plan.

The infrastructure charges schedule:

- provides a transparent account of the cost of the trunk infrastructure being charged for;

- indicates when new trunk infrastructure is likely to be provided;

- quantifies existing and expected new users;

- shows how costs are to be apportioned to those users; and

- states the charge various users will be required to pay.

The IPA infrastructure charging provisions are based on the following principles to ensure they are levied transparently, equitably and efficiently:

- charges are limited to infrastructure providing direct, private benefits to the users of the infrastructure;

- charges are limited to basic and essential services and facilities where consumer choice is constrained for reasons of health and safety or where there are compelling savings in long term provision costs;

- charges are formulated based on plans for the supply of the infrastructure;

- charges are formulated based on reasonable performance requirements (desired standards of service) for infrastructure. The design and construction standards applied must seek to minimise the whole-of- life costs of supplying the infrastructure; and

- infrastructure costs are equitably apportioned among all users of the infrastructure.

2.2 The infrastructure charge

A separate infrastructure charge must be levied for each trunk infrastructure network identified in the infrastructure charges schedule (see IPA section 5.1.7(1)(a)).

Infrastructure charges may be levied for the costs of works to upgrade or extend existing trunk infrastructure networks, or to create new networks.

A local government may levy a charge for the local function of a State-controlled road. Local governments are encouraged to include such charges in their transport network charges to better manage the implementation of a total road network to cater for local traffic.

Charges also may be levied for access to existing trunk infrastructure networks that have been provided to serve planned development. For the purposes of calculating charges, the existing network may be valued at current replacement cost². This assumes that appropriate asset maintenance and replacement programs are in place and that the network is in ‘as- new’ condition, having been kept that way by periodic contributions from existing users.

It follows that charges must not be levied for the costs of works to rehabilitate, maintain or replace existing aged or obsolete components of the trunk infrastructure network unless additional capacity is being provided. Funding for such works is appropriately sourced from revenue sources other than infrastructure charges which align with the benefiting community.

Future infrastructure

(b) includes the costs of preparing infrastructure charges schedules and plans for trunk infrastructure, and determining desired standard of service.

Existing infrastructure

Costing of existing infrastructure networks is based on the replacement cost of the infrastructure as it is assumed the existing network is kept in as-new condition by maintenance and upgrading programs funded by existing users.

2.3 Establishment costs

An infrastructure charge may only be levied for the *establishment cost* of a trunk infrastructure network identified in the priority infrastructure plan (see IPA section 5.1.7).

Establishment cost is defined in the Act, and means:

- (a) *ongoing administration costs for the infrastructure charges schedule for the infrastructure; and*
- (b) *for future infrastructure*—*all costs for the design, financing and construction of the infrastructure and for land acquisition for the infrastructure; and*
- (c) *for existing infrastructure:*
 - i) the residual financing cost of the existing infrastructure; and*

² See section 2.3 definition of establishment costs.

- ii)* the cost of reconstructing the same works using contemporary materials, techniques and technologies; and
- iii)* if the land acquisition for the infrastructure was completed after 1 January 1990—the present value of the amount (if any) paid by the infrastructure provider for acquiring the land.

For the purpose of calculating establishment costs, the following apply:

- ongoing administration costs—means the costs associated with preparing, maintaining and administering infrastructure charges schedules (e.g. updating cost schedules, adjusting charge areas, maintaining charges registers, and issuing notices of charges);
- ongoing administration costs—also include costs associated with preparing and maintaining plans for trunk infrastructure and determining desired standard of service;
- financing costs—means interest charges and other costs arising from the need to provide the trunk infrastructure in a timely manner;
- land acquisition costs—mean the costs of purchasing land for trunk infrastructure;
- land acquisition costs—for calculating the current value of previously purchased land, the CPI (All Groups, City of Brisbane or Weighted Average), is an acceptable index. For future land acquisition values other indices can be used or developed provided the index or information used to derive an index is from a recognised entity (e.g. Department of Natural Resources and Mines land valuations etc.);
- land acquisition costs—do not include land contributed at no cost to the infrastructure provider, unless the land was provided in exchange for infrastructure credits, in which case the value of the credits may be recovered from other users as if the land had been acquired by the infrastructure provider at a direct cost to the provider;
- design and construction costs—must be estimated using the standards the local government would apply if it were constructing the infrastructure itself; and
- design and construction costs—the standards applied must seek to minimise the whole-of-life costs of supplying the infrastructure.

In most cases, land purchased years previously will have been considerably cheaper in real terms than land purchased recently. Valuing existing land holdings at purchase price plus CPI will help to keep infrastructure charges at affordable levels whilst still enabling local governments to fully recover their costs.

2.4 Proportion of establishment cost funded by charge

In estimating the proportion of the establishment cost to be funded by an infrastructure charge, the following apply:

Example - exemptions

A local government may wish to exempt community facilities provided by non-profit organizations.

A local government may also wish to exempt specified uses to facilitate the achievement of identified economic development objectives.

A local government may also wish to offer exemptions or discounts on charges for the achievement of identified environmental objectives, or for projects that reduce demand on infrastructure networks through measures such as water sensitive urban design, installation of rainwater tanks, 'grey water' reuse etc.

- the costs of supplying development infrastructure to non-paying users must not be transferred to other users via infrastructure charges—the funds must be originated from revenue sources other than infrastructure charges;
- if a local government decides not to recover full costs via infrastructure charges—the proportion, or amount, of the costs to be recovered using infrastructure charges must be identified in the infrastructure charges schedule;
- If a local government decides to exempt certain lots or uses from paying infrastructure charges—the exemptions must be identified in the infrastructure charges schedule;
- If a local government is unable to levy infrastructure charges on external users of the infrastructure—the total amount to be recovered by infrastructure charges must be reduced by the amount attributable to the external users; and
- If a decision is made to exempt or subsidise a particular lot or use—the amount of the exemption or subsidy must be recorded in the register of charges as a payment by the local government.

Example - external users

For a roads ICS, external users include visitors to the shire, such as day trippers visiting a beach area in a coastal local government

2.5 Thresholds for providing infrastructure

An infrastructure charges schedule must state either or both of the following:

- Timing—the estimated time that the trunk infrastructure forming part of the network will be provided. For example, the year the trunk infrastructure is expected to be provided.
- Thresholds—the thresholds for providing the trunk infrastructure forming part of the network. For example, when a demand level is reached it triggers the provision of certain trunk infrastructure.

2.6 Area in which charge applies

A charge may apply to all or part of a local government's area.

The area covered by a charge is to be determined by the extent to which the local government area is serviced by trunk infrastructure

and the cost recovery objectives of the local government (for example, the local government might choose to adopt other funding methods).

2.7 Who must pay the charge

An infrastructure charges schedule must state which types of lots or uses (e.g. residential, commercial, industrial) are liable for infrastructure charges and which are exempted. Details of any variations in infrastructure charges for the different types must be outlined in the ICS. An explanation of the variation in charges must be explained in the supporting material.

2.7.1 Ways to state charge

An infrastructure charges schedule may include an equivalence table to provide standard demand units for different types of lots or uses. Standard demand units enable the expression of differing levels of demand or usage generated by different land uses on certain types of infrastructure.

An infrastructure charge levied on **residential** lots or uses may be stated using the following standard demand units:

- a levy per dwelling (equivalent tenement (ET), per trip end, or other unit of demand as determined by the local government); or
- a levy per person (equivalent person (EP), or other unit of demand as determined by the local government); or
- a levy based on the area of developable land and the type of anticipated use.

Standard demand units for **non-residential** lots or uses include:

- a levy based on floor space, trip ends, jobs, or other unity of demand as determined by the local government; or
- a levy per lot which varies with the area of the lot (suitable only when all uses in the charging area are the same); or
- a levy based on the area of developable land and the type of anticipated use.

The charge may be stated as a 'unit charge' with the value of each unit specified in the local government's Register of General Fees and Charges. This provides an efficient means of regularly indexing charges to account for inflation.

Calculating the charge

The basic equation for calculating infrastructure charges is total network establishment costs divided by ultimate network demand to arrive at a charge per lot or other demand unit. Costs and demand can be expressed in current values or alternatively, a discounted cash flow methodology can be used, where net present value calculations are applied to future costs and demand.

Where discount factors and forecasts of the timing of future costs and demand can be accurately estimated, discounting is an effective tool for 'evening out' the differences in timing between the supply of infrastructure and demand for infrastructure. However the method relies on being able to reliably estimate the discount rates used to bring future costs and demand back to present values. Discounted charges must be supported by explanation of the calculation criteria used, such as the discount rate, base year and discount period.

Research undertaken by the Department has shown that demand will lead and lag the various infrastructure components over the period in which an area develops. The infrastructure 'leaders' (water supply and sewerage) effectively balance out the infrastructure 'followers' (stormwater, transport, and community facilities), therefore removing the negative effects of demand and supply imbalances over time.

Note that the use of discounting is not prohibited – rather it is not considered essential for equitable charging, except perhaps where the ICS is weighted towards funding infrastructure scheduled to be provided some years into the future. In addition, other simplified NPV type methodologies can be used. The test will be that the methodology is "reasonable".

2.8.1 Methodology must be clear and comprehensive

The methodology for calculating charges must be presented clearly, comprehensively and in a form that reasonably allows a non-expert to calculate the charge.

Aggregated information is acceptable, but if used, supporting documentation must be available to explain how the information has been compiled.

This information is important supporting explanatory material that can assist with interpreting the charges schedule. Accordingly, this material must be available for inspection and reference together with the infrastructure charges schedule.

The supporting material is generally not to be included as part of the charges schedule. Rather, its existence must be referenced, and identified in the schedule as extrinsic material under section 15 of the *Statutory Instruments Act 1992*.

The local government may decide how it wishes to format and present this supporting extrinsic material.

2.8.2 Credits and offsets

Infrastructure charges credits may apply under a variety of circumstances including the provision of 'works in kind'. For example, the value of the 'works in kind' may exceed the value of the infrastructure charge and the difference may be used to offset future charges or may be progressively refunded as the local government collects charges from other users.

A local government may, if it chooses, offset charges for a different infrastructure network to that provided for by the 'works in kind'. The ICS must explain in what circumstances this would occur and how the charges would be offset.

A local government may, if it chooses, provide a refund for the provision of 'works in kind' under agreed terms between the infrastructure provider and the applicant.

A local government may also, in the establishment of an infrastructure charge, grant a credit for existing or previous use rights or payments.

Credits may be expressed in either demand units (eg EP or ET, trip end etc.), charge units or monetary terms and must be adjusted as infrastructure charges are adjusted.

Credits must be recorded in the register of charges as a liability against the network for which the credit was provided.

2.8.3 Under-recovery and over-recovery

Under or over-recovery of costs will sometimes arise from variations between estimates of infrastructure costs at the planning stage compared with actual costs at the time of supply.

It is important to continually monitor charges in relation to actual costs. Where over-recovery is evident, measures must be taken as soon as possible to bring charges into line with actual costs. If under-recovery has occurred, charges may also be adjusted to ensure full recovery of costs. The local government must not seek to retrospectively recover the shortfall from users who have already paid. Equally, if the estimated costs are found to be higher than the actual costs, the balance may remain with the local government for use in the same infrastructure network.

Example- infrastructure charge credit

If the charge is \$50/ep and the calculated charge for a proposal is 100ep then the amount owing is \$5,000.

If the developer provides \$10,000 worth of 'works in kind', the developer has established 100ep credits.

If the credits are not redeemed for a period of 2 years and the charge is adjusted by the CPI to say \$55/ep then the credit will be \$5,500.

3.0 Apportioning Costs

3.1 What is fair apportionment

The Act states that an infrastructure charge must not be more than the establishment cost of the trunk infrastructure network (identified in the PIP) that reasonably can be apportioned to the premises for which the charge is stated, taking into account:

- the usage of the premises; or
- the capacity of the network allocated to the premises (see IPA section 5.1.7).

3.2 Costs to be apportioned to all users

The costs of trunk infrastructure networks are to be equitably shared amongst all users. This will ensure that development collectively contributes to the need to supply trunk infrastructure, and that those developments which trigger the need for additional network capacity are not unfairly required to pay more than their reasonable share of costs.

Infrastructure charges are levied according to the estimated benefit (including opportunity to benefit both now and in the future) a user derives from a trunk infrastructure network. This beneficial relationship must be quantified and is best done by grouping users into areas of benefit, or 'catchments', where the costs of infrastructure supplied to service each catchment are apportioned to the users within the catchment. It follows that charges are likely to vary between catchments depending on servicing costs.

In most circumstances, the catchment for a trunk infrastructure network will comprise existing users and new users who arrive during the period the catchment is growing to its ultimate size. An exception would be where new trunk infrastructure is being provided for a previously undeveloped 'greenfield' area and there are no existing users.

3.3 Open and closed networks

Development infrastructure networks may be categorised as either open or closed networks.

3.3.1 Open networks

Open networks will, by definition, have some external users that cannot in practical terms be levied an infrastructure charge.

The users of open networks have varying levels of access and some will originate from outside the chargeable catchment.

Most transport and community land networks are open networks.

External usage must be taken into account when preparing infrastructure charges for open networks. Equity principles dictate that the costs of external usage may not be transferred to other infrastructure charge recipients, resulting in them paying more than their fair share of costs.

3.3.2 Closed networks

Closed networks serve a defined catchment with an identified group of users having full access to the service. Access to the network by others is not generally possible.

The most typical closed networks are water supply, sewerage and stormwater management systems as users either have full, or no access to the service.

Infrastructure networks servicing discrete neighbourhoods, such as neighbourhood parks or land for neighbourhood facilities (if identified as trunk infrastructure in the PIP), may also be regarded as closed networks because even though external use is possible, it is unlikely to occur to any significant extent.

The full cost of these closed trunk infrastructure networks may be apportioned to localised “neighbourhood” catchments.

3.4 Acceptable methods of apportioning costs

The following are some acceptable approaches to estimating usage of the various trunk infrastructure networks for the purposes of apportioning costs.

3.4.1 Water supply and sewerage infrastructure

Local governments have been conditioning new development for contributions to water and sewerage headworks for several decades. Scrutiny by the courts has helped to refine the methods used to calculate these contributions and they are still generally applicable under the IPA.

3.4.2 Stormwater management infrastructure

For apportioning costs based on **quantity** of stormwater generated, an acceptable approximation is the non-permeable area of the lot, which gives a measure of the amount of run-off from the lot.

For apportioning the costs of providing stormwater **quality** control devices, a factor can be attributed to the various land use types based on their effects on stormwater quality. For example, light industry would be expected to have a smaller water quality factor than heavy industry.

3.4.3 Transport infrastructure

Estimating usage of transport infrastructure networks can be relatively complex due to their open nature. Cordon surveys, origin and destination surveys, numberplate surveys and travel diaries are examples of how usage patterns may be established.

3.4.4 Local community facilities infrastructure

Surveys of existing community land networks can establish actual patterns of use and serve as a basis for cost apportionment.

3.5 Where network capacity exceeds demand

Costs may be apportioned on the basis of allocated capacity to each premises rather than estimated use if for unavoidable reasons, more capacity is provided than is demanded and apportionment in accordance with estimated use would result in under-recovery of costs³.

The capacity should only be apportioned fully, if there is no prospect of it ever being fully utilised sometime in the future.

3.6 Double dipping

A requirement to pay an infrastructure charge must not result in the same premises paying infrastructure charges or other fees specifically related to increased demand by the premises for allocated capacity more than once.

Example 3.5:

A road provides the only vehicular access to a community. The minimum engineering standards to which the road must be constructed result in its capacity being greater than the community uses. In this case, although capacity exceeds actual usage, it would be appropriate to apportion the full cost of the road to the community because the road would not be required if the community did not exist.

Example 3.6:

A lot accommodating a single house previously contributed to its share of the cost of sewerage headworks.

The house is demolished and the lot reconfigured into 2 lots.

The applicable infrastructure charge at the time of reconfiguration would be for one additional house.

If the charge was for 2 houses it would equate to double dipping because a contribution for one house had previously been paid.

³ See *Integrated Planning Act 1997*, section 5.1.7(1)(b)(ii)

3.7 Grants and subsidies

As a general principle, infrastructure charges must take account of grants and subsidies already received or known to be receivable in the future at the time the infrastructure charges schedule was made.

However, if a grant or subsidy is received that was not anticipated at the time the infrastructure charge was made, the grant or subsidy is to be regarded as a windfall benefit to the community. It is recognised that administrative difficulties would in most circumstances prevent the refunding of charges affected in this way.

Example: 3.8

If a number of stormwater management catchments in an urban area have similar hydrological characteristics, and similar network costs, a detailed cost analysis for one catchment could also be used to estimate the costs for the other catchments .

3.8 Scope for applying calculations to multiple catchments

Applicable costs in one catchment may be used as a basis for charges in another catchment if cost characteristics are similar. It would be expected that, as a minimum, an outline plan of network requirements for each catchment be prepared.

To account for minor differences in catchment characteristics, cost variations of up to 20 per cent are acceptable.

4.0 Other Matters

4.1 Review of ICS

An infrastructure charges schedule is part of the priority infrastructure plan, which in turn is part of the planning scheme. Accordingly, those prescribed local governments identified in Schedule 2A of the Integrated Planning Regulation, 1998 are required to undertake a review of their infrastructure charges schedules at least once every four years.

However, each infrastructure charges schedule should be managed as a 'rolling' program where both demand and supply considerations are continuously monitored so that charges continue to accurately reflect costs, and are apportioned fairly. This process would continue until catchments reach their ultimate demand and are removed from the infrastructure charges schedule.

For those local governments not experiencing significant growth (i.e. those not listed in Schedule 2A) the priority infrastructure plan and consequently associated infrastructure charges schedules do not have to be reviewed during the life of the planning scheme. In these cases the local government must review and prepare new infrastructure charges schedules for its area when the planning scheme itself is reviewed after eight years of operation. However, as is the case for high growth local governments, it is recommended that infrastructure charges schedules also be managed as a 'rolling' program.

4.2 Planning and development certificates

Infrastructure charges are, for the purposes of recovery, taken to be a rate within the meaning of the *Local Government Act 1993*. This means they are a charge over the land. Liability for unpaid charges will transfer with ownership of the land (see IPA section 5.1.14).

The IPA provides for standard and full (not limited) planning and development certificates to contain a copy of information recorded for the premises in the infrastructure charges register or regulated infrastructure charges register and consequently this will identify the amount of any infrastructure charges owing on the land (see IPA section 5.7.9).

4.3 Accountability

Charges collected for a network must be used towards meeting or maintaining the desired standard of service of that network. Appropriate financial accounts must be kept to demonstrate this.

4.4 Transparency

All assumptions relating to the calculation of charges within the infrastructure charges schedule must be documented, justified and expressed in plain English to aid understanding.

The information must be included in the infrastructure charges schedule, or its existence must be referenced, and identified in the schedule as extrinsic material under section 15 of the *Statutory Instruments Act 1992* and be available for inspection in the same way as the infrastructure charges schedule.

4.5 Degree of detail

The degree of detail contained in an infrastructure charges schedule must be commensurate with:

- the complexity of the trunk infrastructure network;
- the complexity of the development environment within which the charges schedule will function; and
- the scale and complexity of the financial undertakings addressed in the schedule.

Suggested Format for Infrastructure Charges Schedules

Local governments may structure their schedules as they choose. This outline is provided to illustrate one way of structuring an infrastructure charges schedule to meet the requirements of the Act.

Part 1. Preliminary

Name of plan

The Infrastructure Charges Schedule name is identified *eg*: This schedule is to be known as the *{insert name}* Infrastructure Charges Schedule.

Contents of plan

The contents of the schedule are listed, *eg*:

This schedule is arranged as follows:

Part 1. Preliminary

Part 2. Trunk Infrastructure

Part 3. Infrastructure Charges

Part 4. Schedules

Part 5. Supporting Information

Terms used in the infrastructure charges schedule

Explanations of terms used in the schedule, eg: Act, Planning Scheme, Development Area etc, are given.

Purpose of this schedule

The purpose of this schedule is identified, *eg: to meet the requirements of the Act; allow new infrastructure to be provided to meet expected growth, recover costs of existing infrastructure etc.*

Specify the land to which the infrastructure charges schedule applies

The area subject to the infrastructure charges schedule (the “development area”) is identified by means of a description and map.

Specify the lots or uses to which the infrastructure charges schedule applies

Specify other matters that may affect the charges

For example, infrastructure agreements within the development area should be identified in the infrastructure charges schedule and taken into account when calculating charges. Lots or uses exempted from paying charges are identified.

Part 2. Trunk Infrastructure

Specify the trunk infrastructure networks or items that will be funded

Trunk infrastructure networks, and their extent, to be funded through infrastructure charges are to be defined (*i.e. urban water cycle management infrastructure, transport infrastructure and/or infrastructure for local community purposes*).

Identify the proportion of the establishment cost to be funded from infrastructure charges

The proportion of total establishment costs to be funded from infrastructure charges is stated i.e. the local government might choose to fund some of the costs from other sources.

PART 3. Infrastructure Charges

Method of calculating the charge

The formula used to calculate charges with an explanation of each element in the formula is to be stated.

Identify who is liable to pay the charge

The lots or uses liable for charges are to be identified, and when they are liable (e.g. upon application for material change of use, reconfiguration or building approval).

An equivalence table detailing liabilities for different land uses expressed as standard demand units is included.

State method and timing of payment

The methods of payment are to be stated. Generally charges will be paid in the form of monetary payments but in certain situations the local government may wish for payment in the form of works and/or land. If so, the local government should identify this here or in a planning scheme policy referenced here.

Times when charges are to be paid by non-applicants, if any, are set out. Timing requirements for applicants should also be shown, in accordance with the timing requirements in the Act.

PART 4. Schedules

Schedule 1. Schedule of works

Planned works are to be set out with their timing and costs identified.

Schedule 2. Schedule of infrastructure charges

The schedule of charges brings together the aggregate value of works (both existing and planned) and total demand.

Separate charges are identified for each trunk infrastructure network and charge area. The charge may be expressed as a unit charge, the value of which is specified in the local government's Register of General Fees and Charges.

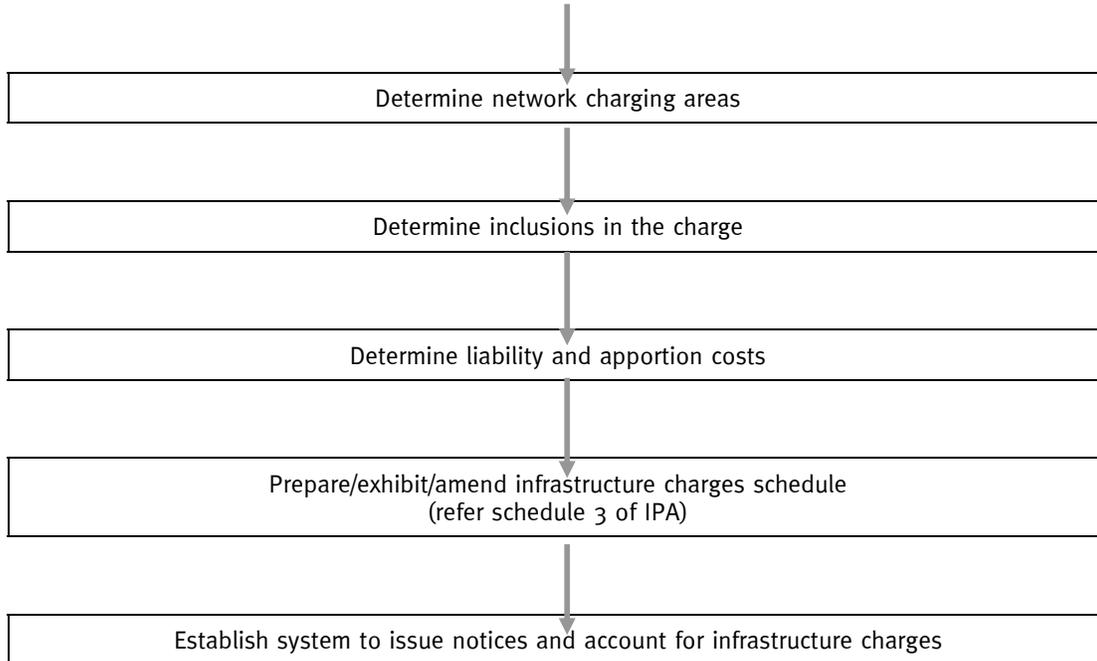
PART 5. Supporting Information

References (eg studies or reports) which have been used to develop the infrastructure charges schedule are to be provided. This supporting information must be available for public inspection. Studies could include social needs studies, recreation studies, traffic and transport studies, environmental studies, etc. or other information that establishes need, costs and cost allocation.

Infrastructure Charges Schedule Preparation – Step by Step

Main Steps in Preparing an Infrastructure Charges Schedule

Identify trunk infrastructure networks to be charged



Step 1 – Identify trunk infrastructure networks to be charged

The trunk infrastructure networks to be subjected to infrastructure charges will have been identified and described in the priority infrastructure plan. They should also be referenced here.

Step 2 – Determine network charging areas

The infrastructure charges schedule is influenced by the layout and complexity of the constituent trunk infrastructure networks. The ICS comprises a number of charging areas which are determined by the relationship of each network to the premises benefiting from its services.

Acceptable Methodologies

- 2a *Two options are for a single infrastructure charges schedule across the PIA or local government area that includes all classes of infrastructure, or separate infrastructure charges schedules for each class of infrastructure. Alternatively, a local government could adopt a number of infrastructure charges schedules based on discrete areas that are smaller than the PIA or local government area. The latter example might apply to a local government with a number of separate towns. The PIP might define the PIA as the urban areas of each town.*
- 2b *Different catchment boundaries will most likely apply to each class of infrastructure.*
- 2c *The infrastructure charges schedule charging boundaries can be non-contiguous.*
- 2d *Infrastructure charges schedules are likely to include multiple infrastructure catchments (for estimating the cost of the infrastructure). A greater number of different catchments within a local government area will usually provide for more accurate user-based costs, but is also likely to require more detailed assessments of the balance of internal and external users of the network. A balance*

to suit the needs of local governments, but at the same time to reasonably reflect relative costs to users will be needed.

Infrastructure charges schedule catchments may also be stratified. For example, for community land there may be a catchment for shire-wide facilities. There may also be multiple catchments for lower level facilities. Similarly, there may be a shire-wide catchment for an arterial road network with a series of sub-catchments for local road networks. In this way the CBD road network can be spread over a benefited catchment which may include the whole urban area whereas the local road network catchments will relate to specific suburbs, districts or neighbourhoods.

Step 3 – Determine inclusions in the charge

The infrastructure charges schedule must state the inclusions, or network components, being charged for. The degree of detail produced by each local government for each network will be influenced by the following:

- the complexity and value of the infrastructure;
- the flexibility in delivering the desired standards of service; and
- the need to be transparent and create an audit trail.

Acceptable Methodologies

3a Local governments may charge for the existing and planned trunk infrastructure necessary to meet the local government's declared service standard objectives. The cost of land may not be charged if it was purchased before 1 January 1990 or was obtained at no cost to Council.

3b The Government grant element of infrastructure funding should be excluded from the chargeable costs where it is known the grant has or will be received eg a longstanding Government grant intended to fund sewerage treatment upgrades.

Step 4 – Determine liability and apportion costs

On the basis of infrastructure charges schedule catchment boundaries, local governments are to determine users and usage. This is to address the following:

- network users within the infrastructure charges schedule area;
- the various classes of internal users (eg anticipated transport trip generation rates by type of land use);
- estimates of usage by internal users;
- network users outside the infrastructure charges schedule area; and
- estimates of usage by external users.

The charge should be levied on those who benefit from the infrastructure to the extent that they benefit. Detailed knowledge of users and usage will contribute to a robust infrastructure charges schedule that will stand up to scrutiny.

Acceptable Methodologies

4a Local governments can adopt an "entry fee" approach to apportion and calculate charges. This involves the following broad steps:

- i. Define catchments, establish existing demand and estimate ultimate demand;
- ii. Define and value existing infrastructure;
- iii. Determine required infrastructure for catchment at ultimate demand;
- iv. Estimate total cost of new and existing infrastructure at ultimate demand; and
- v. Divide the total cost of new and existing infrastructure by the ultimate demand to determine the infrastructure charge.

Examples

The following examples represent a potential methodology for calculating charges in accordance with the Act. The level of detail shown is considered appropriate. Further details would be referenced in the planning scheme and supporting information.

Demand forecasts (derived from population estimates contained in the priority infrastructure plan) coinciding with the catchment boundaries of the infrastructure charges schedule are shown at Table 1. Assumptions and conversion ratios are to be clearly stated, reasonable and justified.

This example provides a scenario of an expanding development front serviced by identically sized catchments for sewerage, stormwater management, water supply, transport and community facilities infrastructure. For convenience, it has been assumed the boundaries for each trunk infrastructure catchment are identical. In reality, this is unlikely to be the case as the unique characteristics of each network will usually determine different boundaries. Cadastral maps should be used to identify which catchments any individual lot lies within and therefore attracts a liability for.

The area is estimated to be fully developed by 2015. In this case, 2002 is the start point and the existing demand is 'in place'. Therefore, the forecasts commence from 2003. The methodology involves projecting land take-up in hectares on an annual basis, converting this to equivalent tenements at the rate of 12 dwellings per hectare, and to equivalent persons at the rate of 2.8 persons per equivalent tenement.

Tables 2 to 6 provide an example of the type of information required to calculate a charge for each of the relevant infrastructure networks. The methodology is described as follows:

- the first step (at the top rows of the table) is to estimate the value of the council's existing infrastructure. There are various methodologies available to councils to calculate this value and the selected methodology will need to be described and justified as part of this process;
- the second step is to calculate the value of the infrastructure required to meet the desired standard of service at the catchment's ultimate demand;
- the next steps are to allocate costs for each network item. Land acquisition, design and construction estimates on a per item basis are provided to produce an estimated construction cost. These estimates are to be produced on the basis of 'best available data' however it is recognised that some level of cost contingency is appropriate. In this example, 20 per cent has been selected and this level will need to be justified;
- the individual costs are totalled and divided by the ultimate number of standard demand units relevant to the network to produce a charge per equivalent unit;
- the expected year the infrastructure item is to be provided is shown;
- these calculations will need to be updated on a regular basis to reflect actual development patterns, changes to costs and better data for the justifications and assumptions. The higher the rate of actual development, the more frequently should reviews be undertaken; and
- for non-residential or mixed development, equivalency tables will be required to convert their demand to common measures.

TABLE 1

CATCHMENT A
FORECAST DEMAND GROWTH - Base Year 2002

Year	Residential Land Absorption (Hectares)	* Equivalent Tenements (ET)	** Equivalent Persons (EP)
2002	51	612	1,714
2003	38	456	1,277
2004	40	480	1,344
2005	48	576	1,613
2006	45	540	1,512
2007	50	600	1,680
2008	50	600	1,680
2009	55	660	1,848
2010	55	660	1,848
2011	55	660	1,848
2012	50	600	1,680
2013	45	540	1,512
2014	40	480	1,344
2015	38	456	1,277
Total	660	7,920	22,176

* 1 Hectare = 12 ETs

** 1 ET = 2.8 EPs

TABLE 2

SEWERAGE INFRASTRUCTURE
CATCHMENT A

	QTY	RATE	CONST. COST	PLUS PLANNING & DESIGN	PLUS COST CONTINGENCY (20%)	TOTAL COST	BASE YEAR	YEAR REQ'D
Existing Infrastructure								
						\$15,018,630	2002	
Planned Infrastructure								
Upgrade pumps at Coast Rd pump station	1 LS	\$165,000	\$165,000	\$16,500	\$19,800	\$201,300		2005
Lift pump station at Sandy Pt trunk sewer	1 LS	\$500,000	\$500,000	\$550,000	\$660,000	\$1,710,000		2005
825 mm ND dia sewer 8m deep (Rural)	1600 m	\$750	\$1,200,000	\$1,320,000	\$1,584,000	\$4,104,000		2005
120 L/s capacity pump station	1 LS	\$289,000	\$289,000	\$317,900	\$381,480	\$988,380		2005
Rising main 100mm dia	1500 m	\$90	\$135,000	\$148,500	\$178,200	\$461,700		2005
300 mm dia DICL rising main	1000 m	\$173	\$173,000	\$190,300	\$228,360	\$591,660		2005
Rising main 1200mm Discharge MH	1 No	\$3,914	\$3,914	\$4,305	\$5,166	\$13,386		2005
300 mm dia gravity sewer	320 m	\$212	\$67,898	\$74,687	\$89,625	\$232,210		2005
375 mm dia gravity sewer	640 m	\$267	\$170,733	\$187,806	\$225,367	\$583,906		2005
525 mm dia gravity sewer 5 m deep	450 m	\$496	\$223,407	\$245,748	\$294,897	\$764,052		2005
225 mm dia gravity sewer	2500 m	\$183	\$458,350	\$504,185	\$605,022	\$1,567,557		2010
225 mm dia gravity sewer	987 m	\$183	\$180,957	\$199,052	\$238,863	\$618,872		2010
450 mm dia gravity sewer	293 m	\$339	\$99,289	\$109,218	\$131,061	\$339,568		2010
450 mm dia gravity sewer	493 m	\$339	\$167,063	\$183,769	\$220,523	\$571,355		2010

TABLE 2 contd...

SEWERAGE INFRASTRUCTURE**CATCHMENT A**

450 mm dia gravity sewer, 5 m deep	1100 m	\$424	\$466,785	\$513,464	\$616,156	\$1,596,405		2010
Required 1350 mm dia > 8m deep (Rural)	3092 m	\$1,204	\$3,722,768	\$4,095,045	\$4,914,054	\$12,731,867		2015
225 mm dia gravity sewer	184 m	\$183	\$33,735	\$37,108	\$44,530	\$115,372		2015
450 mm dia gravity sewer	665 m	\$339	\$225,349	\$247,883	\$297,460	\$770,692		2015
INFRASTRUCTURE COSTS						\$42,980,911		

Total Equivalent Tenements (ET) 7,920

Charge per ET \$5,427

TABLE 3

**STORMWATER MANAGEMENT INFRASTRUCTURE
CATCHMENT A**

	QTY	RATE	CONST. COST	PLUS PLANNING & DESIGN	PLUS COST CONTINGENCY 20%	TOTAL COST	BASE YEAR	YEAR REQ'D
Existing Infrastructure								
						\$1,750,000	2002	
Planned Infrastructure								
Wetland construction	1	\$455,000	\$455,000	\$45,500	\$9,100	\$509,600		2005
GPT G001-004	4	\$55,000	\$220,000	\$22,000	\$4,400	\$246,400		2005
Culvert C001	1	\$192,500	\$192,500	\$19,250	\$3,850	\$215,600		2005
Trunk drainage T0001	1	\$170,850	\$170,850	\$17,085	\$3,417	\$191,352		2005
Trunk drainage T0002	1	\$222,500	\$222,500	\$22,250	\$4,450	\$249,200		2005
Natural channel N0001	1	\$1,018,125	\$1,018,125	\$101,813	\$20,363	\$1,140,300		2005
GPT G005-007	3	\$85,000	\$255,000	\$25,500	\$5,100	\$285,600		2010
Culvert C0002	1	\$83,500	\$83,500	\$8,350	\$1,670	\$93,520		2015
Culvert C0003	1	\$62,500	\$62,500	\$6,250	\$1,250	\$70,000		2015
Infrastructure costs						\$4,751,572		

Total Contributing Area (Equiv. Hectares) 660

Charge per Hectare \$7,199

TABLE 4

**WATER SUPPLY INFRASTRUCTURE
CATCHMENT AREA**

	QTY	RATE	CONST. COST	PLUS PLANNING & DESIGN	PLUS COST CONTINGENCY (20%)	TOTAL COST	BASE YEAR	YEAR REQD
Existing Infrastructure								
						\$22,575,000	2002	
Planned Infrastructure								
Boosted Zone Extension Z10014	1	\$27,886	\$27,886	\$2,789	\$6,135	\$36,810		2005
600 dia main M80042	950 m	\$365	\$346,893	\$34,689	\$76,317	\$457,899		2005
470 dia main M80001	1500 m	\$326	\$488,931	\$48,893	\$107,565	\$645,389		2005
540 dia main M80026	1275 m	\$337	\$430,058	\$43,006	\$94,613	\$567,677		2005
Flowmeter 300 dia J40021	1	\$17,793	\$17,793	\$1,779	\$3,915	\$23,487		2005
10. Booster -Z1085	1	\$130,399	\$130,399	\$13,040	\$28,688	\$172,127		2005
11. 910 dia main M80049	2500 m	\$506	\$1,266,166	\$126,617	\$278,557	\$1,671,339		2005
12. 470 dia main M80019	900 m	\$326	\$293,359	\$29,336	\$64,539	\$387,233		2005
300 dia M80045	1150 m	\$250	\$287,066	\$28,707	\$63,155	\$378,928		2010
150 dia main M80023	550 m	\$70	\$38,500	\$3,850	\$8,470	\$50,820		2010
470 dia main M80078	2185 m	\$326	\$712,209	\$71,221	\$156,686	\$940,117		2010
300 dia main M80045	600 m	\$250	\$149,774	\$14,977	\$32,950	\$197,701		2010
New Pressure Gauge G30056	1	\$23,725	\$23,725	\$2,372	\$5,219	\$31,316		2010
Booster Z1003	1	\$23,725	\$23,725	\$2,372	\$5,219	\$31,316		2010
Reservoir 38.1 R10001a	1	\$23,725	\$23,725	\$2,372	\$5,219	\$31,316		2010
1060 dia main M80052	300 m	\$640	\$191,859	\$19,186	\$42,209	\$253,254		2010
Boosted Zone Extension Z10015	1	\$4,745	\$4,745	\$474	\$1,044	\$6,263		2010
Boosted Zone Extension Z10063	1	\$4,745	\$4,745	\$474	\$1,044	\$6,263		2010
Boosted Zone Extension Z10089	1	\$33,214	\$33,214	\$3,321	\$7,307	\$43,843		2015

TABLE 4 contd....

WATER SUPPLY INFRASTRUCTURE**CATCHMENT AREA**

600 dia main M80031	1750 m	\$365	\$639,014	\$63,901	\$140,583	\$843,499		2015
540 dia main M80069	365 m	\$337	\$123,115	\$12,311	\$27,085	\$162,511		2015
300 dia main M80018	425 m	\$250	\$106,090	\$10,609	\$23,340	\$140,039		2015
470 dia main M80099	2400 m	\$326	\$782,290	\$78,229	\$172,104	\$1,032,622		2015
Booster Upgrade Z1008a	1	\$83,036	\$83,036	\$8,304	\$18,268	\$109,607		2015
INFRASTRUCTURE COSTS						\$30,796,378		

Total Equiv. Tenements (ET) **7,920**
Charge per ET **\$3,888**

TABLE 5
TRANSPORT INFRASTRUCTURE
CATCHMENT A

	QTY		RATE	CONST. COST (A)	CONST. COST (B)	TOTAL	PLUS PLANNING & DESIGN	PLUS COST CONTINGENCY (20%)	LESS EXTERNAL USE	LESS NON LOCAL FUNCTION SCR	TOTAL COST	BASE YEAR	YEAR REQ'D
Existing Infrastructure													
						\$45,000,000			20%		\$36,000,000	2002	
Planned Infrastructure													
Install traffic signals intersection of Road A & B	1			\$175,000		\$175,000	\$17,500	\$38,500	15%		\$196,350		2005
Road K widening: C to D - 33.0m cross section	1600	m	\$1,800	\$2,880,000	\$292,500	\$3,172,500	\$317,250	\$697,950	10%		\$3,768,930		2005
Road O widen to 4 lanes: A to B - 33.0m cross section	1025	m	\$1,800	\$1,845,000	\$175,500	\$2,020,500	\$202,050	\$444,510	10%		\$2,400,354		2005
Bikeway				\$98,000		\$98,000	\$9,800	\$21,560			\$129,360		2005
Road E extension - Stage 1 (new two lane road)	3750	m	\$1,200	\$4,500,000	\$2,400,000	\$6,900,000	\$690,000	\$1,518,000			\$9,108,000		2010
Fauna movement infrastructure (Road E)	1			\$1,250,000	\$273,000	\$1,523,000	\$152,300	\$335,060			\$2,010,360		2010
Road G widening: Upgrade existing 23.0m cross section	550	m	\$850	\$467,500	\$36,000	\$503,500	\$50,350	\$110,770	20%		\$531,696		2010
Road H widening: Upgrade existing 23.0m cross section	625	m	\$850	\$531,250	\$18,000	\$549,250	\$54,925	\$120,835	20%		\$580,008		2010
Road I widening: Upgrade existing 23.0m cross section	200	m	\$850	\$170,000	\$6,750	\$176,750	\$17,675	\$38,885	20%		\$186,648		2010
Road J widening: Upgrade existing 23.0m cross section	900	m	\$850	\$765,000	\$36,000	\$801,000	\$80,100	\$176,220	20%		\$898,722		2010
Road K widening: G to H - 33.0m cross section	1500	m	\$1,800	\$2,700,000	\$316,875	\$3,016,875	\$301,688	\$663,713	20%		\$3,185,821		2010

TABLE 5 contd....

**TRANSPORT INFRASTRUCTURE
CATCHMENT A**

	QTY	RATE	CONST. COST (A)	CONST. COST (B)	TOTAL	PLUS PLANNING & DESIGN	PLUS COST CONTINGEN CY (20%)	LESS EXTERNAL USE	LESS NON LOCAL FUNCTION SCR	TOTAL COST	BASE YEAR	YEAR REQ'D
Road E extension - Stage 2 (4 lanes): Upgrade to 4 lanes	3750m	\$1,650	\$6,187,500	\$0	\$6,187,500	\$618,750	\$1,361,250	10%		\$7,350,750		2010
Road L intersection upgrading (local function proportion of cost only)	1		\$500,000	\$100,000	\$600,000	\$60,000	\$132,000	20%	30%	\$396,000		2010
INFRASTRUCTURE COSTS										\$66,742,999		

Const. Cost (A): Road pavement construction

Const. Cost (B): Includes land acquisition, traffic signals, etc

SCR: State Controlled Road

Total Equivalent Persons 22,176
Charge per Equivalent Person \$3,010

TABLE 6

**COMMUNITY FACILITIES INFRASTRUCTURE
CATCHMENT A**

	QTY (Ha)	RATE (/Ha)	LAND ACQUISITION (A)	CONST. COST (B)	PLUS PLANNING & DESIGN	PLUS COST CONTINGENCY (20%)	LESS EXT. USE	TOTAL COST	YEAR REQ'D
EXISTING INFRASTRUCTURE									
	6.95							\$2,574,280	
FUTURE INFRASTRUCTURE									
District Park	6.52	\$500,000	\$3,260,000	\$ 570,500	\$ 57,050	\$777,510	20%	\$3,732,048	2010
Local Park A	1.53	\$500,000	\$765,000	\$ 64,260	\$ 6,426	\$167,137		\$1,002,823	2005
Local Park B	1.06	\$500,000	\$530,000	\$ 44,520	\$ 4,452	\$115,794		\$694,766	2005
Sub-district Park A	2.03	\$500,000	\$1,015,000	\$ 85,260	\$ 8,526	\$221,757	10%	\$1,197,489	2005
Local Park D	0.56	\$500,000	\$280,000	\$ 18,200	\$ 1,820	\$60,004		\$360,024	2005
Local Park E	0.04	\$500,000	\$21,000	\$ 5,365	\$ 537	\$5,380		\$32,282	2010
Local Park F	1.06	\$500,000	\$530,000	\$ 44,520	\$ 4,452	\$115,794		\$694,766	2010
Local Park G	0.98	\$500,000	\$490,000	\$ 31,850	\$ 3,185	\$105,007		\$630,042	2010
Local Park H	1.50	\$500,000	\$750,000	\$ 63,000	\$ 6,300	\$163,860		\$983,160	2015
Local Park I	1.25	\$500,000	\$625,000	\$ 52,500	\$ 5,250	\$136,550		\$819,300	2015
Local Park J	0.30	\$500,000	\$150,000	\$ 9,750	\$ 975	\$32,145		\$192,870	2015
Sub-district Park	2.95	\$500,000	\$1,475,000	\$ 123,900	\$ 12,390	\$322,258	10%	\$1,740,193	2015
								\$14,654,044	

(A): Land Acquisition (B): Park Facilities/Embellishment Costs

Total Equivalent Persons (EP)

22,176

Charge per EP

\$661

Appendix 1: Local Governments subject to QCA prices oversight of water and sewerage businesses

Brisbane City Council;

Gold Coast City Council;

Ipswich City Council;

Logan City Council;

Townsville City Council;

Caboolture Shire Council;

Cairns City Council;

Caloundra City Council;

Hervey Bay City Council;

Mackay City Council;

Maroochy Shire Council;

Noosa Shire Council;

Pine Rivers Shire Council;

Redland Shire Council;

Rockhampton City Council;

Thuringowa City Council;

Toowoomba City Council; and

Bundaberg City Council.

Appendix 2: Summary of the Queensland Competition Authority's Water Pricing Principles for Contributed Assets

Contributed assets are those assets which are funded or otherwise provided by, or on behalf of, water users. Under *The Integrated Planning Act 1997*, developers may still be required to construct or contribute financially to the construction of certain local government infrastructure items, including urban water infrastructure facilities. External contributions may also be sought for works undertaken by urban water boards or for other water services businesses.

There are strong equity and efficiency grounds for recognising capital contributions in the pricing structure of a water business. Recognition of past contributed assets in the setting of prices depends on the particular circumstances surrounding the capital contribution, particularly the expectations of the parties at the time the capital contributions were made.

Where it is proposed to recognise capital contributions, different approaches have been proposed. In general these involve either:

- including the contributed asset in the regulatory asset base, but employing some form of offsetting mechanism to account for the contribution; or
- excluding contributed assets from the regulatory asset base for pricing purposes.

These approaches can be applied either in a backward-looking framework, for previous capital contributions, or in a forward-looking sense for anticipated future contributions.

The QCA's preferred approach is to include contributed assets in the regulatory asset base together with some form of offsetting mechanism to account for the contribution. This provides scope for users and water businesses to structure deals consistent with their relevant circumstances. Where such agreements are not in place, and it is still proposed to recognise capital contributions, contributions should be recognised by way of specific financial credits to the relevant contributors.

The QCA recognises that the above approach may be impractical and administratively complex where there are a large number of contributors each with different circumstances. In these instances, the aggregate value of contributions may be converted to an annuity and recognised as revenue over the life of the relevant assets. This approach reduces the amount of revenue the water business needs to recover from other sources, including user charges, with the net effect of uniform reductions in fixed water charges for all customers in particular categories.