

CLAYTON UTZ

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Water Recycling Projects

Can they be delivered efficiently and effectively?

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Selecting a procurement model

There is a range of 'procurement models' that local government can draw upon in delivering a recycled water project.

There are two key questions to be considered:

- What are the objectives for the project
- What are the constraints on delivery of that project

Objectives for use of Recycled Water

- Demand management is not the only answer to scarcity of supply
- High grade drinking water need not be used in many industrial and agricultural applications
- Recognising that wastewater is a valuable resource in its own right (for example Hunter Water's current EOI and realising that value

Use of Recycled Water

Some examples of recycled water use:

- 'Dual reticulation' schemes to green field residential developments (for example Rouse Hill)
- Irrigation for agriculture
- Irrigation for golf courses, controlled green spaces, dust control
- Supply to large scale industry where potable water can be replaced with recycled water

Constraints and opportunities for local government

- Conditions in the procurement market
- Availability of technical expertise
- The scale of the project and demand for the product
- Availability of revenue and government funding
- Availability and the demands of private funding for a return on investment
- Potable water pricing

A brief note on pricing

The debate over water pricing continues

"Ongoing investment in new infrastructure requires a consistent national approach to water pricing that embodies the principles that users pay the true cost of water consumption.

When matched with the right regulatory and access regimes, pricing signals can help encourage the private sector to bring forward its innovation and expertise and invest in new supply options."

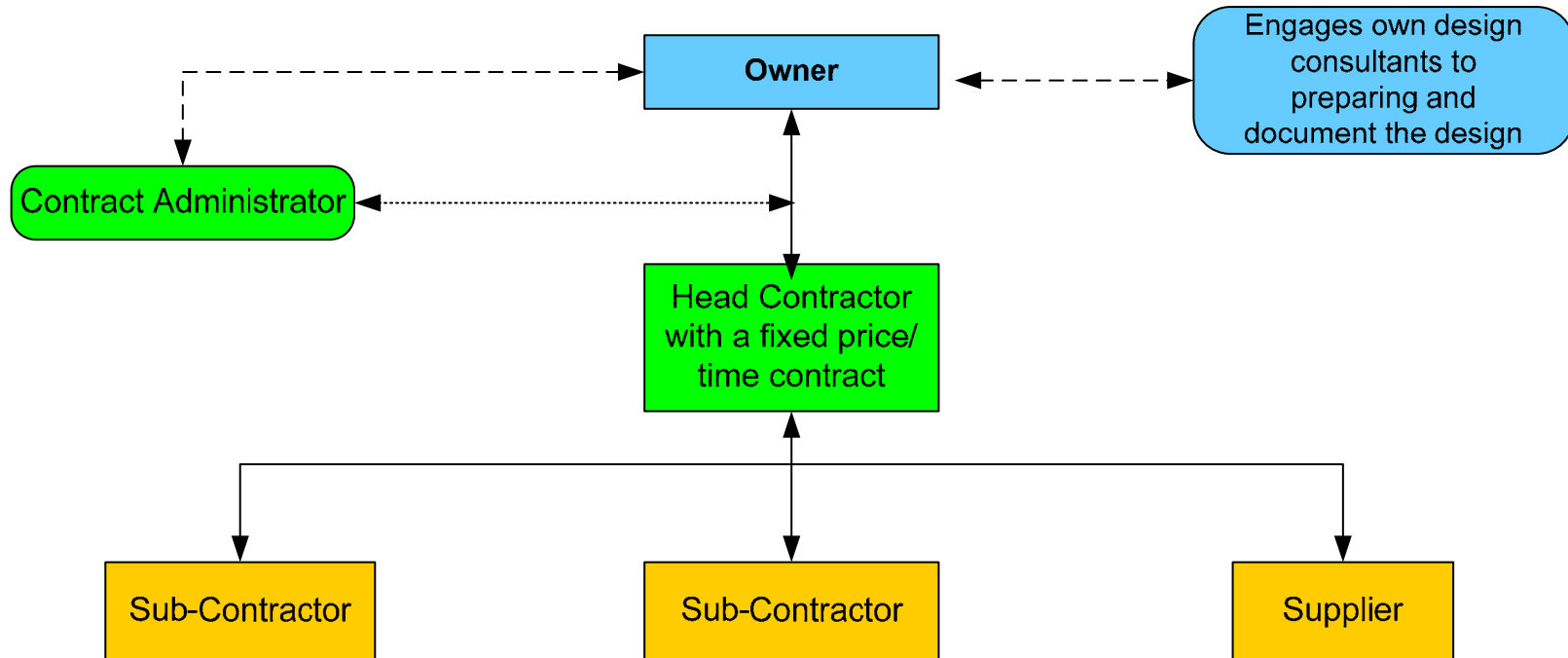
Garry Bowditch, Executive Director, Infrastructure Partnerships Australia.

Australian Financial Review 4/7/07, pg 12

Some procurement 'tools'

- Traditional: 'lump sum' and 'fixed time'
- Design & Construct: lump sum and fixed time
- Design, Construct and Maintain/Operate
- Relationship Contracting
- Privately Financed Projects/ PPPs
- This is not an exhaustive list and models can be 'tailored' to suit project objectives and constraints

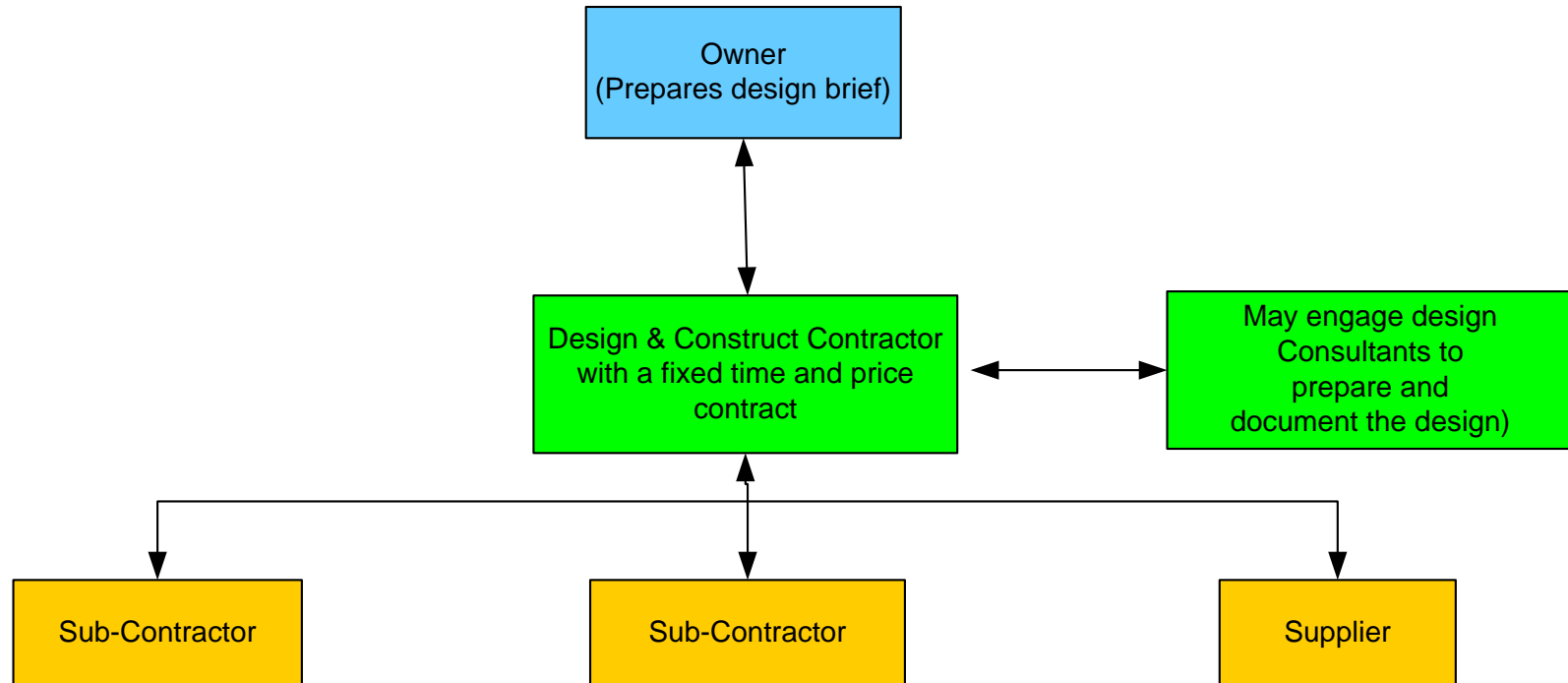
Traditional



Traditional

- Principal designs the Project (usually by engaging own designer)
- Contractor assumes no risk on design
- Contractor constructs for lump sum to an agreed program
- Principal engages an administrator

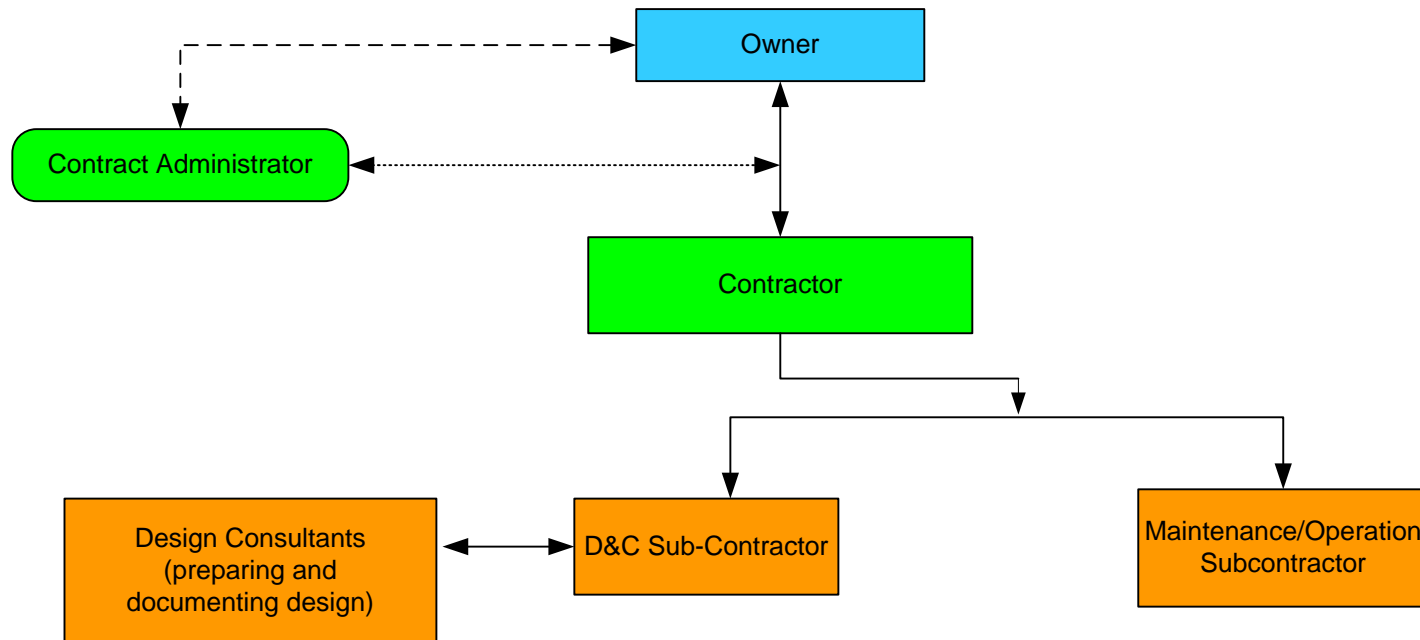
Design & Construct



D&C

- Principal issues a design brief which must clearly specify performance and quality requirement
- Contractor designs (or engages designer as a subcontractor)
- Contractor controls the design process and manages 'buildability' issues (assumes risk on design)

Design, Contract & Maintain/Operate (DCM/O)



DCM/O

- Similar design and construction obligations as 'Design and Construct'
- Contractor also assumes responsibility for maintenance for a fee
- Generally contractor's risk that the cost of maintenance is less than the fee (encourages Contractor to design with life-cycle costs in mind)
- 'Operate' includes maintenance and day to day operation with similar fee risk

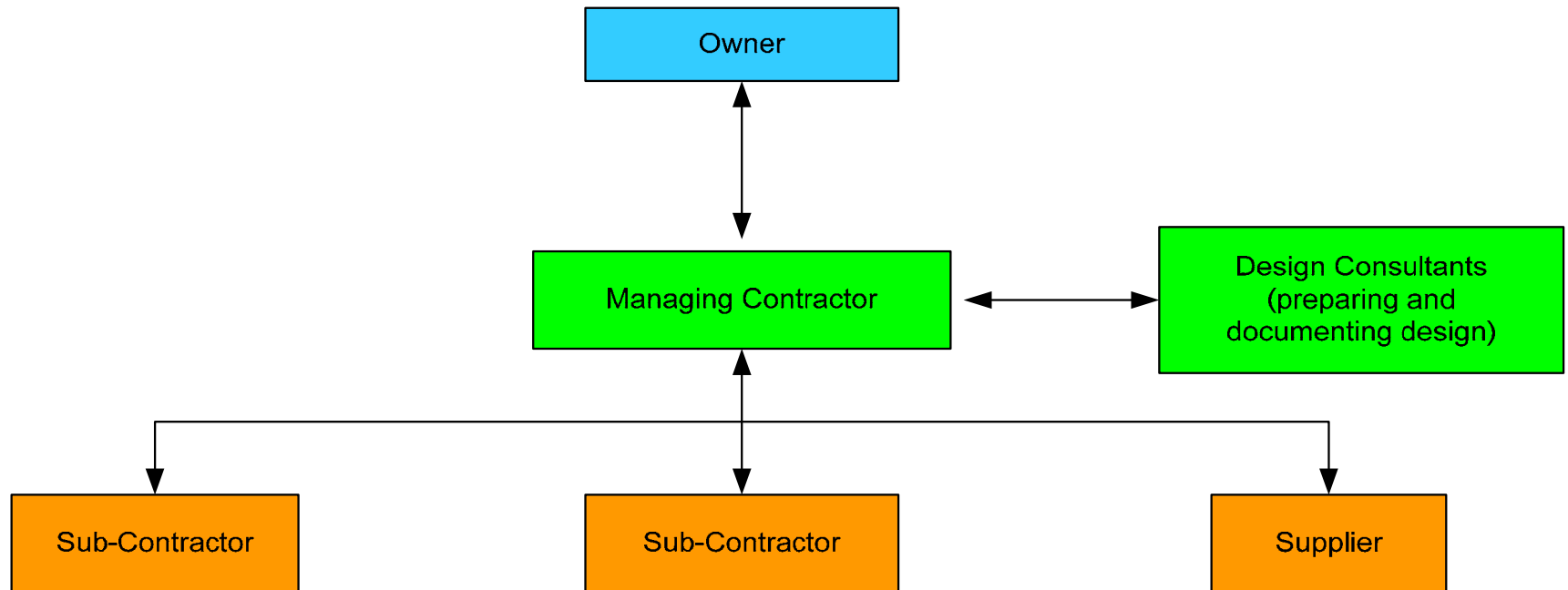
Relationship Contracting

- Managing Contractor
- Alliance Contracting

Managing Contractor

- Manages delivery 'on behalf of' the Principal
- Manages the project from 'feasibility' through to commissioning for a lump sum (for the management component)
- Provides management and advisory services and engages design/construct subcontractors
- Not exposed to time/cost risk as is reimbursed for subcontractor costs (costs plus)

Managing Contractor Structure



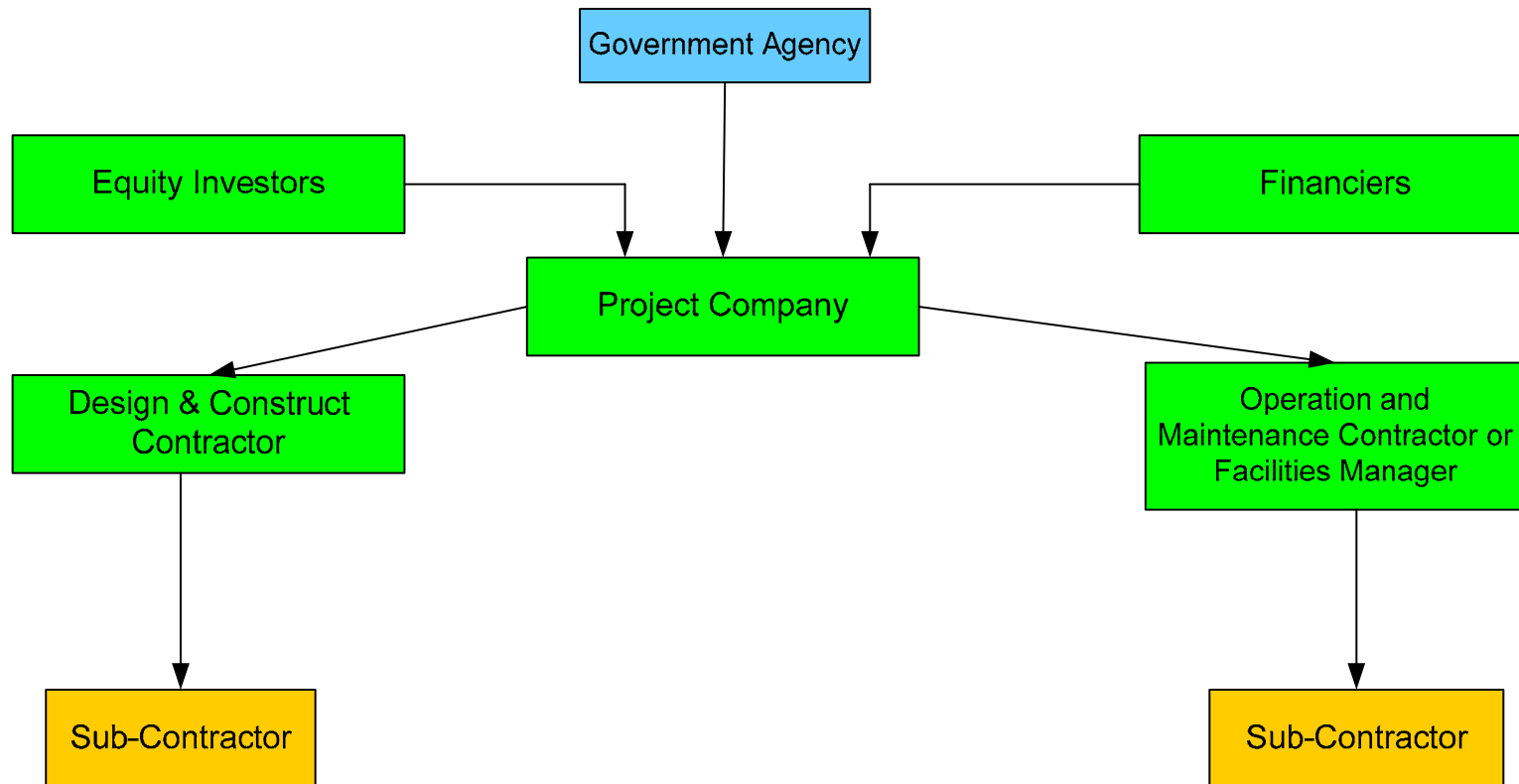
Alliance Contracting

- Objective is to align commercial interests of 'Principal' and 'Contractor'
- Target Cost agreed upfront with shared risks and rewards against achievement of that target
- Contractor receives actual costs and further remuneration is structured on 'key performance indicators'

Privately Financed Projects

- Economic Infrastructure
- Social Infrastructure
- Local Government PPP Legislation
- NSW Treasury Commercial Principles

Privately Financed Projects



Economic Infrastructure

- Private party takes market risk/upside opportunity
- Debt repayment and equity return made through access to an external revenue stream (e.g. tolls)
- Private party at risk on operation/maintenance cost
- Build, Own Operate Transfer (BOOT)
- Build Own Operate (BOO)

Social Infrastructure

- Government party takes market risk
- Debt repayments and equity return made through Availability/Service charges paid by Government
- Abatement of payment for quality/performance failures
- Need not be a 'private ownership' element

Contemporary examples

- NSW Treasury Commercial Principles Projects
- Camellia Recycled Water Project
- Western Sydney Replacement Flows project

Camellia Recycled Water Project

- Sydney Water's preferred structure is a BOO
- Government's objectives is for private party to take market risk/upside opportunity
- Small underwritten component to 'seed' the market
- Project Company owns the assets upon expiry of the term

Western Sydney Replacement Flows Project

Awarded to a consortium of McConnell Dowell, United Utilities and GE

Contract structure is comprised of separate lump sum D&C and O&M contracts

O&M Payment Regime:

- Availability charge with abatement against KPI's plus a Usage charge
- Separate stream for asset renewal against an agreed program

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