

Helen, thanks for your terrific contribution

10.11.00

GREEN GAMES WATCH 2000



Towards an environmentally responsible Olympic Games

Thanks for your perseverance & dedication, Helen - creativity aids survival! All the best -

Issue 11, Spring, 2000

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OLYMPIC ENVIRONMENTAL LEGACY

Meaning, Achievements and Transferability of Sydney's Olympic Environmental Legacy

THIS IS FOR EVERYTHING JOHN CLAS

At approximately \$3.5 billion, Sydney's Olympic developments comprise the largest building project in the southern hemisphere and the world's largest ever application of the principles of Ecologically Sustainable Development (ESD).

With so much attention focused on sport, it was perhaps not readily apparent that what has been created at Homebush Bay (even taking into account its shortcomings) is a laboratory of the future. It presents a great opportunity for a turning point in Australian urban development and the building and event management industries, and in the 'greening' of public and private corporations. Australia has probably created the world's most comprehensive ESD intellectual capital base, a fundamental resource for an economically and ecologically sustainable society.

Marketing has never been Australia's gold medal event and, unlike Norway in 1994, we failed to mention our 'Green Games' achievements at either Opening or Closing Olympic Ceremonies. This lack of political interest paralleled the environmental disinterest of our domestic media, contrasting with the keen inquiries and coverage of international media.

Achievements and disappointments

In terms of compliance with the *Environmental Guidelines* and international best practice, GGW assessed the Sydney 2000 Olympics as being 'semi-green' with areas of outstanding environmental achievement balanced by serious failures. They were greener than any previous Summer Olympics, which were environmentally disastrous, but fell far short of being 'bright green' as an environmentally sustainable event. (See our website for further detail).

The main green wins included:

- facilitation of ESD design & construction skills
- working examples of environmentally friendly venues and housing developments
- construction & Games-time waste minimisation
- the OCA's progressive tendering and life cycle assessment policies
- sustainable timber sourcing
- use of solar power and recycled water
- treatment of dioxins and other toxic waste
- non-chemical pest management
- widespread use of indigenous plant species
- public transport access

The main green losses included:

- failure to 'green' corporate sponsors and government departments
- failure of government to advance industrial clean production (Lidcombe Liquid Waste Plant)
- environmentally unfriendly Olympic bus and VIP car fleets
- environmentally irresponsible Olympic merchandising
- widespread use of ozone depleting refrigerants and PVC plastics
- bushland removal for Criterium Cycling track
- lack of commitment to continue and / or improve Olympic waste management system
- inadequate community consultation

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Barriers to Olympic ESD

Many factors compromised delivery of a Green Games. GGW identified the following problems:

- inconsistent environmental interest shown by the NSW Olympics Ministry and minimal interest by the International Olympic Committee
- only 4 staff in SOCOG's Environment Group
- division of Olympic organisers into two groups (venue construction by the OCA and event management by SOCOG) which hindered cooperative communication
- failure to budget adequately for environmental initiatives and programs
- failure to establish clear and quantifiable environmental benchmarks
- lack of strategic integrated site planning
- insufficient early coordination of ESD solutions across projects and venues which meant some sustainable options became technically or financially impossible later
- lack of clear management and timeline responsibilities for post-Olympic management - eg of Millennium Parklands and toxic landfills
- progressive weakening of environmental commitments and their weak linkage to other relevant benchmarks
- lack of accountability or financial sanctions for non-compliance
- systemic secrecy, extension of commercial-in-confidence and weakness of NSW Freedom of Information legislation
- 'locking up' of ESD information
- corporate conservatism and entrenched professional networks which reduced innovation in design and technology
- OCA and SOCOG's obstructiveness to environment groups by withholding information and / or funding, and blocking site visits and liaison with project personnel

Additionally, the Olympic development consent process differed from the NSW norm to reduce community participation and environmental accountability. Olympic legislation ensured that no development was 'designated' and that full environmental impact statements were replaced with shorter statements of environmental effects. It removed local council power to alter Olympic proposals and community rights to appeal decisions to the Land and Environment Court or hold a public inquiry.

Transferability

The Sydney Olympics have improved understanding of how to plan, construct and stage venues

and events with less environmental impact. However, the above problems compromised the integrity of Sydney's Olympic environmental 'framework' and must be overcome to ensure transferability to future developments beyond the Games.

Maximising the environmental legacy requires a greater level of political and corporate commitment and transparency; and a more robust public policy 'framework for sustainability' that resolves the shortcomings, and facilitates the flow of ESD intellectual capital (much of which remains secret due to legal constraints) and wider implementation of Sydney Olympic environmental initiatives. Only then will Australian urban development, event management and private and public corporate governance move towards ecological sustainability, and future Olympics and Commonwealth Games be 'greened.'

GGW has visited Melbourne several times this year to liaise with its 2006 Commonwealth Games organisers about environmental issues.

GGW recommends the following urban planning essentials:

- effective environmental targets and timetables
- transparency, clear lines of accountability and genuine community consultation
- incorporation of ESD principles through integrated site and regional planning
- consistent legislative empowerment of ESD objectives across each level of NSW planning policies
- improved and accessible ESD knowledge resource, with an upgraded government-coordinated Green Products Database to facilitate a national process for environmental assessment of building materials
- government application of accurate lifecycle costing to all public sector projects, using extended manufacturer or developer responsibility to incorporate currently externalised environmental costs.

GGW hopes this process will be advanced with the release of our 'green building legacy' an *Environmental Design Review of Olympic Facilities* and the *Sydney 2000 Olympic and Paralympic Games Environmental Benchmarks* which have been developed by the Total Environment Centre and GGW 2000 in association with the Olympic Environment Forum.

Both of these documents will be available on our website. ♦ BS, HL

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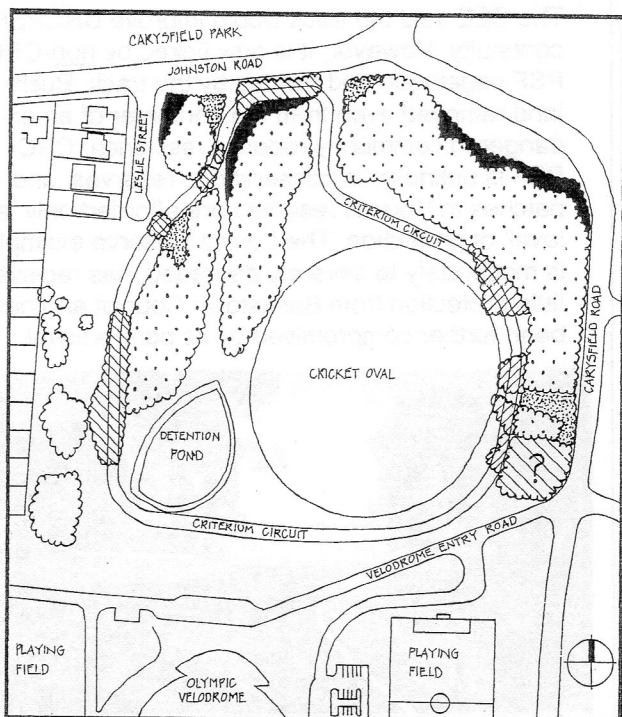
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





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The SEE said bushland restoration works would recreate the site's natural vegetation community. While a good principle, it shouldn't have been allowed to justify track construction and bushland removal. It is impossible to completely replicate the full biological complexity of a natural ecological community, and indeed the SEE's landscape plan showed a limited range of about 35 plant species to 'recreate' a community of 220 species.

The SEE also referred to the use of native plants 'similar' to those in Louisa Reserve. Non indigenous natives can become weeds. Biodiversity should be increased using available CRCPSF species, not species from other ecosystems.



LOUISA RESERVE - BUSHLAND REGENERATION AND REMOVAL

	Existing bushland to be regenerated
	Proposed bushland edge extension areas
	Regenerating areas which the OCA identified as 'edge extensions', thereby increasing its figure for bushland recreation
	Acacia pubescens identified by the OCA, but with no intentions shown
	Bushland identified by the OCA for removal for track construction
	Bushland which the OCA failed to show as requiring removal for track construction

Ongoing bushland management

The SEE conceded that ongoing circuit use could degrade habitat, but said it would be minimised by landscape treatments and pedestrian management that discouraged indiscriminate access through bushland during events. No mention was made of non-event time, cyclists entering bush, retrieval of cricket balls from bush, or fencing.

Although much of the SEE's proposed bushland regeneration strategy looked quite sound, it was

worrying that ongoing management was so dependent on Bankstown Council which showed ambiguous in-principle commitment dependent on sporting needs being met first. Council seemed likewise non-committal about endorsing the *Acacia pubescens* Recovery Plan required by the National Parks & Wildlife Service (NPWS).

GGW is sceptical about Council's record with bushland conservation. Other bushland on The Crest has been mismanaged and weed infested. There seems to be no bushland management plan; nor has Council been receptive to expert advice from BBS. The SEE claimed the community had been 'consulted extensively' on track suitability when key groups were largely ignored. Who will ensure Council undertakes its responsibilities? The NPWS is too under-resourced to monitor compliance for small bush remnants. If Council is to be long term manager, there must be more binding obligation to ensure compliance.

Proposed cricket oval in Louisa Reserve

The OCA's SEE for the track was submitted simultaneously with Council's DA for a cricket oval it was intended to encircle. The oval determined track location and removed further CRCPSF.

Inconsistency with legislation and ESD guidelines

The Criterium Track failed to comply with *the Environmental Guidelines for the Summer Olympic Games*, DUAP's *Environmental Planning for ESD* (1996) and sections of the TSC Act.

The Guidelines state that Olympic host cities should commit themselves to:

- preservation and protection of the integrity of natural ecosystems;
- special attention to endangered species; and
- landscape programs that minimise disruption of wildlife habitat, protect indigenous plant species, and select species to complement existing habitats.

The track has fragmented the remnant CRCPSF, removed TSC Act -listed vegetation and introduced non-locally indigenous species, all of which will compromise its integrity.

DUAP's document says biodiversity protection 'conserve[s] areas of remnant natural vegetation and the fauna which live in it', in part by:

- identifying and protecting rare and endangered species and their habitats;
- protecting remnant natural vegetation areas and corridors from direct and indirect disturbance caused by changes to drainage, introduction of exotic species, addition of nutrients to run-off, and introduction of noise and artificial light;

- creating buffer zones between development and areas of natural vegetation; and
- positioning roads, pathways and cycleways away from important natural ecosystems.

The Criterium Track clearly breaches the above recommendations. When preparing a plan of management in 1997 for The Crest Sporting Complex, prior to construction of the Velodrome and Criterium Circuit, Bankstown Council didn't categorise the bushland (as required under Local Government legislation) nor provide targets or strategies for its protection. The NPWS therefore failed to realise that areas of CRCPSF had been omitted from the track's layout design plans.

GGW recommendations

As the Circuit was a temporary Olympic facility, it didn't need to be of the approved configuration. GGW2000 believed that some of the discounted options for track location were preferable and recommended the following options:

- use of the existing Criterium Track and road cycling venue at Lansdowne which already hosted full-scale competition events and required no bush clearing;
- relocation of the proposed Criterium Track to nearby Carysfield Park; or
- forgo the cricket oval and realign the Criterium Track there to avoid bushland removal.

However, although GGW and BBS staged a lengthy campaign against this proposal, fencing of the proposed circuit site was completed while the SEE was still on public exhibition, the project was approved, and GGW and BBS were denied access to the Reserve during construction and blocked from monitoring the project.

Conclusions

The OCA later admitted to GGW (off the record!) that it had removed nearly double the bushland identified in the SEE, and also conceded that the Criterium Circuit was *not* necessary for an Olympic warm-up track. Indeed, a criterium circuit is more closely related to road racing than to velodrome events. GGW & BBS suspect the government saw the new circuit as a prop to make the Velodrome economically viable and save it from becoming a post-Games white elephant.

Unfortunately, the community can gain no redress because Olympic legislation protects the OCA from court action even though the circuit was not strictly an Olympic development.

Bankstown Council breached the TSC Act at The

Crest in 1999 with the deliberate construction of a gross pollutant trap and drain through another endangered ecological community. To have since proposed a cricket oval itself and made land available to the OCA in other rare vegetation at The Crest looks like mutual collaborative non-compliance by local and state government with NSW threatened species protection legislation.

Economics have again overridden conservation of urban bushland. Knowledgeable community groups who followed correct procedure have again been marginalised and disempowered. The precedent set by the NSW Government's approval of CRCPSF destruction at the Chullora Freight Terminal in 1999 has been endorsed. What hope for urban bushland conservation if governments don't honour their own environmental legislation and allow for genuine community participation? ♦ HL

Olympic car fleet

..... nothing green for Sydney

The *Environmental Guidelines for the Summer Olympic Games* required the use of low polluting transport systems. To comply with both the Australian Greenhouse Office's *Olympic Greenhouse Challenge* report (1999) and its own *Environment Report* (1999), SOCOG aimed for minimal air pollution emissions and the showcasing of initiatives to reduce greenhouse gas emissions.

Environment groups hoped that SOCOG would equal or better Atlanta's performance at the 1996 Olympics where 20% of the vehicle fleet was fuelled by low polluting Liquefied Petroleum Gas (LPG). However, SOCOG's 3 500 vehicle fleet for transporting officials and VIPs had no LPG-powered cars. Management of the entire fleet was contracted to private consultants who had no ESD guidelines, so the fleet's performance was more rather than less polluting.

Responsibility for this failure to comply with the *Guidelines* lies with both the NSW Government and Olympic Sponsor Holden. Holden was inflexible in its pricing policies for LPG-converted cars and the Government lacked the commitment to negotiate a satisfactory deal. SOCOG was unable to influence the outcome.

This episode has highlighted the NSW Government's failure to adopt ecologically sustainable considerations in its car purchasing policies. ♦ BS

SOCOG fails to hold Eco-Design Workshop

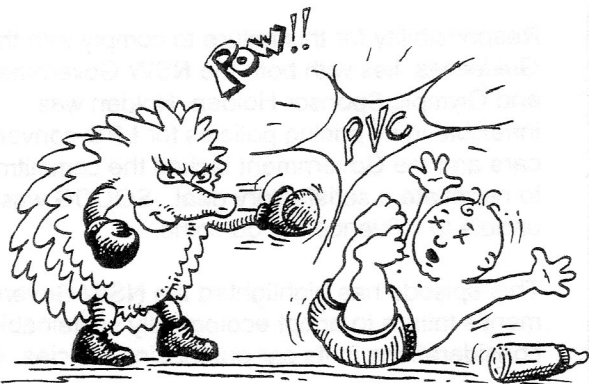
In response to GGW2000's damning 1999 report *Review of the Environmental Merchandising Policies of SOCOG: the Missed Opportunity*, SOCOG agreed to cooperate with GGW's proposal to hold an Eco-Design Workshop for interested Olympic business licensees.

GGW arranged for Professor Chris Ryan, one of Australia's leading eco-design experts from RMIT's National Centre for Design in Melbourne, to address a SOCOG business licensees seminar in June 1999. Many attendee firms expressed strong interest in a follow-up workshop to improve their understanding of this important new business opportunity.

However, in the following months various senior SOCOG marketing executives, who had been responsible for the failure of the multimillion dollar merchandising program to include environmentally designed products, relocated to lucrative corporate positions - some to SOCOG licensee firms. Just as SOCOG had lacked commitment to implementing the *Environmental Guidelines* in its merchandising program, its interest in an Eco-Design Workshop also faded.

Despite GGW pressure to conduct the workshop, SOCOG reneged claiming inability to fund the relatively small expense the event would have incurred. Perhaps employing one less highly paid PR consultant to convince people how 'green' SOCOG has been, would have covered this cost.

The unfortunate legacy of SOCOG's failed merchandising program includes lost opportunities for Australia to develop a major new and progressive merchandising industry with great export potential, and hundreds of thousands of toxic PVC plastic mugs and toys potentially impacting negatively on the health of young children. ♦ BS



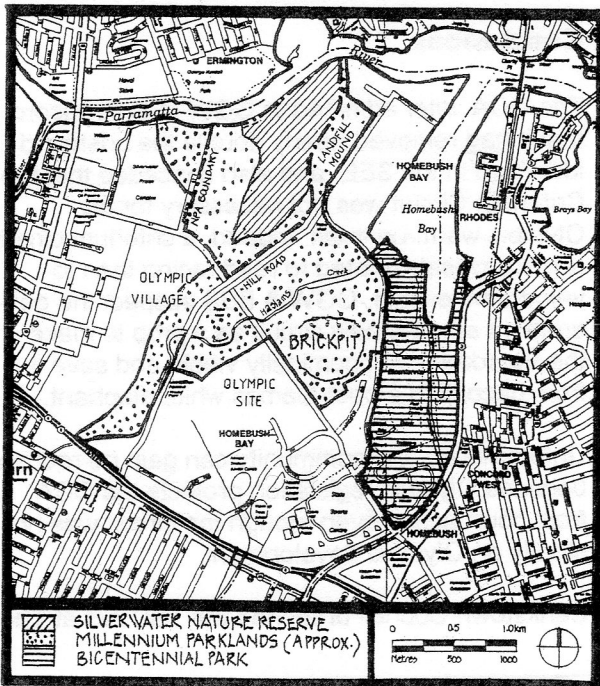
Silverwater Nature Reserve

After sustained lobbying from GGW and other environment groups, the NSW Government gazetted a 48 ha Silverwater Nature Reserve within Millennium Parklands at the Homebush Olympic site only hours before the Olympic Opening Ceremony on 15 September.

This important and largely weed-free bushland is Sydney's only remaining example of a complete estuarine zonal succession from intertidal mangroves to salmarsh wetlands, swamp-oak forest and Cumberland Plain eucalypt forest on shale. It supports over 150 plant species and about 140 bird species, many of which are migratory water birds and listed on international protection treaties. There are also Aboriginal-carved trees.

Environment groups had lobbied since the 1980s for a larger 135 ha Reserve (including a grassland buffer zone to the east, west and south and an historic buildings area to the north-west) and later one of 100 ha after the eastern area became an Olympic landfill mound. During Parklands planning, ideas were canvassed for a cycling and pedestrian boardwalk along the Reserve's river edge and a small-train ride on existing rail track through its centre. The National Parks & Wildlife Service has since said that no visits would be allowed in order to protect the bushland.

For over 90 years before the Olympics the site was managed as a naval armaments depot by the Commonwealth Department of Defence. The OCA will hand over Reserve management to the NPWS soon after the Games. ♦ HL



OLYMPIC WASTE

Waste management ... where to now?

Olympic waste management was one of the largest, most problematic and visible means by which the success of the 'Green Games' would be assessed. It was also hoped to be a catalyst for developing a standard and more ecologically sustainable waste management system for public events in NSW and for more widespread adoption.

As Sydney is running out of landfill space, and dumping waste in regional areas would negatively impact on other communities (economically and environmentally), Sydney's Olympics were intended to show how the largest public event could manage its waste in an environmentally friendly manner.

Olympic waste management was considered in two contexts: facility *construction* (waste avoidance and minimisation) and facility *operation* (catering, packaging, bin system and signage, waste sorting, recycling, composting and public education).

The Olympic Coordination Authority (OCA) effectively minimised construction waste, setting new environmental benchmarks for the Australian building industry, and was to be responsible for minimising Games-time waste outside the secure perimeters of Olympic venues (the 'common domain' areas between venues) and at public transport interchanges.

SOCOG was to be responsible for waste management during facility operation and inside venues. Minimising operational waste also involved the Olympic Roads and Traffic Authority (ORTA), Olympic sponsors and licensees, local councils, business and public and proved the greater challenge.

Operational waste

Under the *SOCOG Act (1993)* Sydney 2000 was obliged to consider the *Environmental Guidelines for the Summer Olympic Games* in which sixteen of over 100 commitments relate to waste minimisation and management.

The Olympic Games were expected to generate over 10 000 tonnes of waste in 16 days - enough

to fill 11 Olympic swimming pools. It included about 45 million pieces of cutlery, straws and cup lids; about 30 million plastic bottles and 20 million aluminium cans; food and packaging; and medical and other back-of-house operational waste.

Sydney 2000 aimed to divert 80% of operational waste from landfill by recycling cans, glass and PET and by processing about 5000 tonnes of organic food waste and biodegradable packaging into a high-grade compost for public sale through landscaping suppliers.

SOCOG efforts

SOCOG's intentions and efforts were mostly commendable. In 1998 it released its *Sydney 2000 Games Integrated Waste Management Solution* for a consistent approach to public waste education and to waste collection throughout the city, Olympic venues and transport interchanges.

It formed a Waste Education Working Group comprising Games organisers, waste industry Olympic sponsors, the beverage industry, NSW agencies and environment groups. This group developed an Olympic Waste Education Plan (WEP) to highlight the importance of the waste issues (particularly waste avoidance, minimisation and streaming) at large-scale events and to raise public commitment to it. Although a very good attempt at round-table stakeholder participation, it proved difficult to agree on or progress actions and the group disbanded a year before the Games. GGW had proposed an Olympic Waste Education Campaigner to implement the WEP, but this wasn't furthered by SOCOG which generally failed to fund public waste education.

SOCOG developed an Olympic waste system (based on that of the Sydney Waste Boards) to collect compostable and recyclable materials (food and paper; co-mingled drink containers) in the majority of locations, as well as residual waste (to landfill) in service and other areas where the other two streams were likely to be contaminated.

Olympic packaging was mostly successful. Encouraged by GGW, SOCOG collaborated with its waste sponsor companies to develop biodegradable cutlery and food packaging: eg cornstarch cutlery and bin liners, sugar cane fibre plates, and paper or cardboard packaging; colour-coded food packaging consistent with recycling bin colours, and recyclable PET plastic wine glasses and beer cups. It also trialed its developing waste system at Olympic test events.

After SOCOG's Waste Education Working Group disbanded, it was very difficult for GGW to monitor pre-Games progress on food and packaging as SOCOG's Catering Program refused to cooperate with GGW's audit of SOCOG's environmental performance.

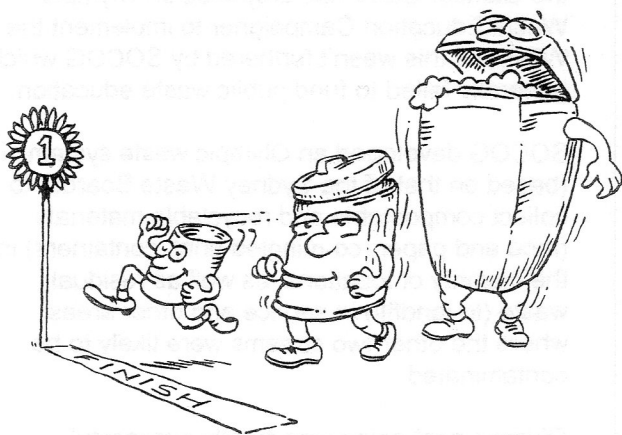
Planning was also interrupted with the creation of Sydney 2000 by merging OCA and SOCOG.

Bin system

GGW pressed for a three-bin system in all public (front-of-house) locations to facilitate separation of residual waste. However, Sydney 2000 opted for a two-bin system which depended on strict input control via contracts with caterers and suppliers to avoid certain contamination of both waste streams by materials which didn't conform to either category (eg polystyrene drink covers, chip packets, ice-cream wrappers, plastic food containers and cutlery). Input control was later lost when visitors were allowed to take their own food and packaging to venues.

Sydney 2000 acknowledged the contaminants issue, but argued that it was trying to reduce contamination to an acceptable level and that a three-bin system would result in three contaminated waste streams instead of two.

Up to eight bin types were used back-of-house to target other and larger waste products generated by suppliers and caterers.



Test Events

In September & October 1999 GGW attended the Equestrian, Sailing, Archery, Baseball and Rowing Test Events to observe waste management at the Horsley Park, Rushcutters Bay, Homebush Bay and Penrith Lakes venues. In February and May 2000 we attended the Gymnastics and Swimming Test Events which were official trials

for the waste management system at the Sydney Aquatic Centre and Superdome.

In 1999 GGW saw no input controls. Waste included materials deemed unacceptable by Sydney 2000 (eg plastic cling wrap and cutlery, aluminium foil wrappers and mixed-material containers). Various recycling bins and four kinds of signage varied from well-placed to ad hoc and didn't conform to the proposed system. Event caterers used the normal diverse range of food packaging, and there were no environmental messages for the public - a lost opportunity for education.

Sydney 2000 later said it didn't use the 1999 Test Events to trial waste because it had insufficient control over potential waste items entering venues, and that it would have been too costly and labour intensive to separate waste types during the events' relatively short timespans.

At the official Swimming Test Event GGW saw three different waste systems of inconsistent bin colours and signage both inside and outside the venue. Many inside bin groups didn't allow for a residual waste stream, resulting in extensive contamination of the compost stream - reported by the waste receiver to be nearly 40%, when the acceptable contamination level is 5%.

As use of plastic bin liners to contain compostable waste has been problematic because the bags were themselves contamination and required removal during the composting process, the Aquatic Centre's use of biodegradable bags for the compostable waste stream should have been a significant advancement. However, their benefit was largely cancelled by the system's inconsistencies and high contamination level.

Other problems for Homebush Test Events were that there were different waste managers for venues and the common domain eg SOCOG inside, RAS (Royal Agricultural Society) outside. The RAS didn't take the relatively small-scale Test Events seriously, so limiting ways to highlight potential hitches at bigger Games events. Until the formation of Sydney 2000, SOCOG found it obstructive and inefficient having to liaise with venue managers via the OCA which had been consistently uncooperative with SOCOG's waste management initiatives and development of a single waste system and had failed to resolve local government coordination issues.

Sydney 2000 undertook waste research and auditing at some Test Events, but didn't share its results with GGW. As the Games approached, the two major obstacles to an effective Olympic

waste management system were still bin and signage infrastructure and public education.

At the Games

GGW's monitoring of waste system performance during the Games was also difficult as Sydney 2000 allowed us extremely limited access to venues (one free day pass for the common domain only!). So GGW paid to attend three events (kayaking at Penrith, volleyball at Darling Harbour and athletics at Homebush) to assess public waste behaviour.

There were no bins at train stations for security reasons (potential bombs) and they were gradually removed from live-sites in the city. Without the midnight army of cleaners, rubbish at live-sites (particularly Circular Quay) would have been appalling.

There were sufficient and well-located bins at venues, although ample contamination of both waste streams. This was probably due to composite food containers (eg paper coffee cups with polystyrene lids; polyethylene cups with plastic lids and paper straws), uncertainty about which were or weren't recyclable plastics and lack of a third bin for residual waste - which confused disposal choices; general thoughtlessness, insufficient pre-Games public waste education; and lack of a motivational sign at bin groups to encourage the goal (eg 'help us achieve a Green Games by reducing waste going to landfill by up to 80%').

During the first week of the Games, Sydney 2000 claimed successful 80% diversion of waste from landfill, which was a half-truth as some of the waste was transported to Port Stephens to undergo the Bedminster process which takes mixed waste, recovers only some organic and recyclable material and produces low-grade compost.

Conclusions

At the time of printing, final waste figures were not available to GGW. However, GGW considers Olympic waste management broadly successful in that it diverted more waste from landfill than any other event in Sydney.

Pre-Olympics, waste management at Sydney public events was 'clean it up and haul it away.' Manly's 1999 and 2000 annual Food and Wine Festivals were the first events to attempt to control inputs and establish a collection system for different materials.

In the past year similar waste reduction initiatives at Sydney events have become more commonplace. Councils are encouraged to develop Waste Reduction Plans (WRPs) at local events, but are not yet legally bound to implement them.

Sydney 2000 built on experiences from large-scale Sydney events and from its own Test Events. Organic material from most of the latter became very low grade compost or 'expensive landfill' and all of the 1999 Easter Show organic waste was landfilled due to high contamination levels and plastic bin liners. However, some of the compost made from organic material collected at this year's Easter Show and the Swimming Test Event met the Australian standard (AS4454) for composts and mulches and will be sold to the public under the 'Garden to Garden' label.

GGW remains critical of the lack of public education. Three months before the Games GGW worked in association with the Beverage Industry Environment Council (BIEC) due to mutual concern about Sydney 2000's acknowledgement that very little public education was planned.

GGW, BIEC and Sydney 2000 planned a series of waste-wise events around NSW and produced a video and media press kit about Olympic waste management. The video news release (VNR) showed food packaging for the Games, the bin collection system and processing methods for materials collected. Distribution of the VNR and press kit to local TV stations and newspapers followed the torch relay through NSW towns.

The Olympic bin system could facilitate a consistent approach to waste collection in public places like shopping malls, parks, streets and transport interchanges and at public events across NSW.

However, from our experiences working with stakeholders on developing a program for more environmentally sustainable waste management at public events, GGW concludes that legislative commitment to the broadscale adoption of a standard bin system is necessary. Public education remains a problem, as a sustainable system requires high quality inputs to ensure valuable outputs.

There is currently no framework to continue the Olympic waste management system or its co-operative partnerships, and no definite plans for an equivalent. There is need for broadscale re-design of bins and colour-coded packaging, and clear labelling of plastic and biodegradable packaging. ♦ HL, CD

OLYMPIC ODOURS

Lidcombe Liquid Waste Plant odours in the Olympic Catchment

In May GGW2000 released a report on the Lidcombe Liquid Waste Plant (LLWP)* in response to complaints from residents in the Olympic catchment about odours, toxic air emissions and potential accidents at the Plant.

The LLWP is operated by Waste Services NSW (WS) and processes most of the state's industrial liquid waste. When first built in 1988 it was compatible with the surrounding toxic landfill waste-land, but is now incompatible with new Olympic sporting, recreational and residential developments. It is located 250m from Newington (Athletes) Village and adjacent to the SuperDome and Stadium Australia. A proposed primary school for 450 students will be built less than 250m away.

The LLWP extended its operations in 1998 with the installation of best-practice technology and odour control measures. However, continuing complaints from local residents indicate the Plant has not fulfilled Government consent conditions that no odours or toxic emissions be detectable beyond Plant boundaries. The Plant operated at low capacity during the Games to avoid negatively impacting upon the world's finest athletes, implying that emissions during ordinary operations are unacceptable. GGW is therefore concerned about the potential for both short and long term negative health impacts.

Plant operations

The LLWP concentrates about 100 000 tonnes of incoming industrial liquid waste per annum to about 20 000 tonnes of problematic solid residues, with the remaining aqueous component discharged to the sewer. While treatment mitigates waste hazards like highly acidic, alkaline, oily or greasy contents, it does little to reduce the output of persistent organic pollutants and heavy metals. Additionally, a five-fold decrease in volume means a five-fold increase in waste concentration, which is not waste minimisation. By 2008 NSW toxic wastes requiring treatment are expected to rise to 150 000 tonnes per annum, which is not ecologically sustainable.

GGW's report highlights the liquid waste industry (LWI)'s narrow application of waste minimisation policies, in particular WS's non-compliance with the waste reduction hierarchy of the *Waste Minimisation and Management Act 1995* (WMMA) - avoid, reduce, reuse, recycle, dispose - and the NSW Environment Protection Authority (EPA)'s failure to advance waste minimisation among the Plant's client industries. The report suggests strategies for the 5-option hierarchy, and stresses that only when pollutants can't be subject to the first four options should disposal be considered.

However, the LLWP's current business plan prioritises the least desirable option and shows little effort to reduce upstream waste generation.

Key problems for ESD

Key problems are the potentially toxic nature and increasing volume of feedstock, that WS has little regulatory control over volume, that it is cheaper to treat output than to reduce input at source, and that neither WS nor the EPA has any financial incentive to advance clean production and waste minimisation. With no across-the-board commitment to reduce waste, the NSW Government is failing to comply with its own legislation and commitments within Australia's national sustainability strategy.

GGW's report examines future opportunities for the LLWP which are simultaneously consistent with both ESD and WS's corporate principles. The emphasis is not on relocating the facility, but on how its operations may be scaled down by implementing cleaner production.

Recommendations

It outlines an appropriate response to the legislative framework through the urgent application of progressive clean production policies and best environmental practices driven by a system of Tradeable Emission Rights as economic incentives for industry to move towards sustainability. Such instruments have substantially reduced pollution in other nations. It also recommends the establishment of an Olympic Catchment Community Environmental Monitoring Committee to improve environmental outcomes in the catchment.

It then lists immediate actions the NSW Government should urgently consider to gain short-term improvements, and the longer-term strategic policies required to minimise the need for liquid waste treatment.

Immediate actions

- urgent appointment of a task force to review operational and technical issues to improve Plant performance and achieve zero odour and toxic emissions detectable outside LLWP boundaries
- establishment of a taskforce to advance clean production throughout the LWI in accordance with the WMMA waste reduction hierarchy
- establishment of a system of LWI Tradeable Rights and tax incentives for research and development of waste minimisation and clean production technologies
- regular odour and chemical monitoring of LLWP's emissions by independent EPA-commissioned consultants, with results on-line
- EPA enforcement of LWI compliance with WMMA through mandatory zero waste plans with clear achievable targets and time frames, and specific source reduction targets for all highly toxic pollutants

Strategic actions

- extensive upgrading of LLWP's chemical testing facilities
- WS adoption of LLWP Sustainability Business Plan
- continued landfill (in a dedicated area) of solid waste 'filter cakes' until clean production and zero waste technologies can eliminate them
- Federal Government compilation of a comprehensive National Pollutant Inventory to assist clean production and establishment of a Tradeable Rights System

NSW Government actions:

- seed-fund the establishment of an Industrial Chemical Waste, Re-use and Recycling and on-line Brokerage Service to cross-match each firm's inputs and outputs
- part-fund small liquid waste generators in paying for waste minimisation / clean production services and reward clean production achievers
- commission treatment of leachates from Homebush Bay's waste mounds and sustainable waste solutions for the treatment of LLWP's biological and metal hydroxide sludges
- adoption of a best-practice LWI transparency policy to ensure freedom of information, sharing of expertise and genuine community participation
- market the 'Lidcombe Solution' as an outstanding achievement in terms of sustainability and the search for business excellence.

Although GGW and Waste Service NSW have strongly divergent opinions on some issues, the project's constructive consultation process improved the integrity of the report's recommendations. This was in marked contrast to much of GGW's five-year interaction with SOCOG and OCA, in which secretive and uncooperative attitudes blocked progress towards ecological sustainability. If the NSW Government responds creatively to this report, it will be another positive environmental legacy from the Olympics. ♦ HL

* Oakwood M & Grey F, 2000. *Lidcombe Liquid Waste Plant: Towards Ecological Sustainability*. GGW2000, Sydney.

New GGW Website!

www.greengameswatch.org

GGW2000 has extensively upgraded its website as its five-year contract concludes soon after the Paralympic Games. The new website presents a summary of GGW's intellectual capital in a manner accessible to both media and general enquires. There are excerpts of GGW's reports, newsletters and media releases, and answers to the questions most frequently asked of us.

Website structure and content reflect the major environmental issues detailed in the *Environmental Guidelines for the Summer Olympic Games* which formed a key component of Sydney's successful 1993 Olympic Bid and were incorporated into state legislation.

Topics include venue planning and construction, Olympic Village and 'smart suburbs', energy and water conservation, air quality and refrigerants, toxics and land remediation, waste minimisation, biodiversity, transport, Olympic sponsors, community consultation and ESD futures.

It is intended to be one of GGW's major vehicles for advancing ESD beyond the Olympics.

Between November 2000 and the Athens 2004 Olympic Games, GGW's website will be maintained by the Total Environment Centre.

♦ BS, HL

PERFORMANCE REVIEW

Earth Council's Third Review of the OCA

In February this year the international Earth Council released its third review of the Olympic Coordination Authority (OCA's) environmental preparations for the Olympic Games.

It included a commentary on ten key issues, an outline of the OCA's progress, two scorecards rating general issues and fulfillment of specific requirements in the *Environmental Guidelines for the Summer Olympic Games*, and recommended improvements. Ratings covered facility planning and construction; energy and water conservation; air, water and soil quality; transport, waste minimisation and the remediation of polluted sites; ecological studies, regeneration programs, protection of significant natural and cultural environments; public consultation and community relations.

Praise

The Review praised the OCA for its:

- completion of more facilities which demonstrate the benefits of ecologically sustainable development (ESD);
- efforts with energy efficiency (in design, construction and transport), renewable energy and 'green energy', although it was encouraged to increase the latter;
- progress with site remediation and treatment of scheduled chemical wastes, although it was encouraged to clean up the Homebush Bay waterway and shore shortly after the Games;
- commitment to protecting ecological systems and regenerating natural areas such as at Haslams Creek and Millennium Parklands, the Equestrian and Shooting Centres, and the Green & Golden Bell Frog habitat in the Homebush Bay Brickpit; and
- achievement of global best practice results in waste management during facility *construction* phase, although it was still to implement its commitments in facility *operation* and in the urban domain of dozens of Olympic venues.

Criticisms

As highlighted in the first two Reviews, the OCA continued to fall short in communicating quickly and effectively with the public who concluded that the delay and selective release of environmental

information was secretive and excluding them from the decision making process. The Review claimed that this mistrustful atmosphere and lack of transparency may have prevented constructive dialogue and partnerships for innovative solutions and effective program delivery, and didn't inspire confidence in OCA's environmental performance.

The OCA had not yet realised its potential to lead the promotion of best environmental practice: eg the best possible Olympic waste management solution to catalyse best practice throughout Sydney, and use of its purchasing power to generate market demand for non-ozone depleting refrigerants.

The Earth Council said OCA's commitment and procedures to avoid CFC, HCFC & HFC refrigerants would be tested as the Games approached.

The OCA had made limited visible progress in cleaning up Homebush Bay, which raised doubts about its commitment and a fear that any work not well underway and fully funded prior to the Games was unlikely to be completed afterwards.

There was strong community opposition to the OCA's proposed Criterium cycling track which would dissect a threatened plant community at Bankstown. (See page 4). The Review advised the OCA to address the community's concerns or acknowledge that the facility was being built at the expense of its commitments to preserve biodiversity and respect community views.

Recommendations

The Review said that Sydney must demonstrate Australia's best thinking and technologies via the Games, and also try to ensure these are on a par with world best practice. It concluded that the OCA was meeting the large majority of its environmental commitments and that successes significantly outweighed shortcomings. However, to support the OCA's push to showcase the most sustainable Games so far, it advised the OCA to:

- ensure transparency in its activities, and full and timely access to information;*
- deliver a best practice waste management solution venues and the public domain, in close cooperation with SOCOG;*
- avoid ozone-depleting refrigerants and influence the increased availability of alternative refrigerants in Australia during and after the Games;*
- reconsider the form of its proposed Criterium cycling track in order to fully incorporate environmental and community concerns;

- further support green power schemes;
- fully implement the management plan for protection of the Green & Golden Bell Frog colony at Homebush Bay; and
- share its important lessons, tools and processes developed to implement ESD principles at all stages of planning, construction and operation of Games facilities.

* Nearly half of these recommendations were made in the second Review in 1999.

The Review noted concerns about the new outsourcing arrangements between the OCA and SOCOG (in which the OCA essentially absorbed SOCOG to become Sydney 2000): ie whether it would dilute environmental commitments and their effective fulfilment, or enhance the delivery of key operations for the Games.

GGW comments

Generally GGW supports the Earth Council's comments, but not its ratings. As in the 1999 Review, there were some marked discrepancies between the commentary and the scorecards which show an average score of 8.5 out of ten and none lower than 7. Some of the high scores were again puzzling given the following realities:



A 7 for public consultation and community relations generally, and an 8 for community participation in the planning process specifically. These were among the OCA's most consistent weaknesses. Avenues for community participation were limited and not required under Olympic legislation. OCA's 'Planning Focus' meetings to outline Olympic development proposals were briefing sessions rather than genuinely interactive consultation. Whether community concerns raised in written responses to Statements of Environmental Effects for those proposals were actively considered is uncertain. The OCA was generally obstructive in providing GGW with information and access to venues.

A 9 for waste avoidance and minimisation (facility construction phase), and an 8 for best practice recycling, composting and public education (facility operation). While the OCA was effective at the former, to be awarded an 8 for the latter was very over generous. Until the formation of Sydney 2000, facility operation was SOCOG's

responsibility and the OCA was for a long time uncooperative with SOCOG's waste management initiatives. For further information see page 7.

A 7 for avoiding CFCs, HFCs and HCFCs in refrigeration and air conditioning processes. These were used!

An 8 for transportation generally and a 10 for the elimination of leaded fuels. This was misleading in that the bus fleet was heavily reliant on diesel, less than 20% of buses used CPG, and no cars in the Olympic fleet used LPG. This failure to comprehensively employ alternative fuels was a big environmental failure. (See page 5).

The 1999 Review noted the need to clarify long term responsibility for areas and facilities now managed by the OCA (eg Millennium Park). This issue wasn't raised in the third Review and remains unresolved.

GGW2000 questions whether the Review's discrepancies and separation of the critical detailed comments from the more flattering tabulated ratings enabled the OCA and media to focus on the latter and mislead the general public with partial information. Negative press would further anger the general public already jaundiced by IOC rorts, SOCOG's ongoing trials and budget shortfalls, the bleeding of funds from other State Government departments to resource the Olympics and the possibility of long term NSW debt.

The Earth Council will complete its fourth and final Review of the OCA after the Games. GGW's third Review of the OCA is summarised on page 14. ♦ HL

GGW2000 Research Reports

There are three reports in progress which will be completed after GGW's closure:

- 35 Life Cycle Assessment of Building Materials (2000)
- 36 Lidcombe Hospital ESD Site Development Plan (2000)
- 37 Legal Drafting Instructions for a Bill to Govern the Environmental Management of Olympic Park, Millennium Park, Silverwater Nature Reserve and Olympic Venues (2000)

(See also page 14 for all previous reports)

DESIGN REVIEW

Environmental design of Sydney Olympic facilities

Sydney won the bid to host the 2000 Olympic Games partly on its commitment to high-quality environmental performance, a concept now adopted by the International Olympic Committee as the third element of Olympism along with sport and culture. As a long term benefit to Sydney and Australia, however, any improvements must be applied to post-Olympic developments.

GGW's third and final Review* of Olympic developments intends to assist dissemination of Sydney's Olympic ESD practices and lessons by reporting on specific environmental design initiatives (eg daylighting, natural ventilation, thermal performance, life cycle costing of alternative options, life cycle assessment and eco-rating of materials), why they were chosen, how they were implemented, what hurdles were overcome, performance expectations compared with more conventional approaches and how far they have moved towards ESD.

It does, however, observe that 'sustainable building' is a new concept and therefore still hard to attain; and that while Sydney's Olympic developments may have met their functional demands, their praiseworthy 'green' initiatives are yet to be quantified in long term operation.

Covering the Sydney International Shooting Centre, Royal Agricultural (Sydney) Showground, Stadium Australia, Sydney SuperDome, Dunc Gray Velodrome and Athletes Village, it comprehensively details the background of each development, its regional and site-related issues, building-related and management issues, benchmarking and specific recommendations.

It discusses development processes - including ESD in tendering, design and specification; the benefits and drawbacks of both specialist and integrated multi-disciplinary team inputs; and environmental management plans to ensure that issues are addressed in a thorough and systematic rather than ad hoc manner.

It concludes that while the Games were clearly not entirely 'green', they were certainly greener than they would have been without the commitment of the *Environmental Guidelines*, and

that 'sustainable construction' is a direction rather than a specific set of solutions.

The report notes that no environmental design review of the other Olympic venues seems to be planned. It urges this be undertaken before the OCA ceases to exist lest valuable ESD knowledge be lost with document archival, disbanding of design teams and loss of corporate memories.

◆ HL

*Myer A, 2000. Environmental Design Review of the Olympic Facilities. GGW2000, Sydney.

GGW Research Reports: 1996-2000

- 1 Energy Infrastructure and Management (96)
- 2 Transport Infrastructure (96)
- 3 Waste Management (96)
- 4 Management of Contaminated Sites (96)
- 5 Water Cycle Infrastructure (96)
- 6 Environmental Management Systems (96)
- 7 Millennium Park Report (96)
- 8 Seminar Proceedings: Environmental Performance for the Sydney Olympics - what should businesses be doing?(96)
- 9 Seminar Proceedings: Greener Products in Detailed Design of Olympic Developments (97)
- 10 Strategy for a Car-Free Olympics (97)
- 11 Olympic Facilities in Western Sydney (97)
- 12 Environmental Performance Review (97)
- 13 Natural Heritage Under Threat (97)
- 14 Open Venues for the Sydney Olympics (97)
- 15 New Western Sydney Olympic Facilities (97)
- 16 Social Capital in the Olympic City (97)
- 17 Indoor Air Quality Guidelines (98)
- 18 Raising Environmental Benchmarks (98)
- 19 Bay to Mountains Cycleway (98)
- 20 Plantings for Biodiversity (98)
- 21 State of the Olympic Catchment: Environmental and Social Profile (98)
- 22 Integrated Pest Management Strategy for Sydney Olympic Venues* (98)
- 23 GGW2000 Stormwater Education Strategy* (98)
- 24 Visions of the Sydney Olympics: Environmental Legacy* (98)
- 25 Energy Management and the Olympic Sponsors (98)
- 26 Review of the Environmental Merchandising Policies of SOCOG (99)
- 27 Environmental Performance Review Report No 2 (99)
- 28 Eyes on Olympic Green (99)
- 29 Lidcombe Liquid Waste Plant: Towards Ecological Sustainability (00)
- 30 Waste Management and Team Millennium Partners (00)
- 31 The Green Building Legacy (00)
- 32 Sydney 2000 Olympic and Paralympic Games Environmental Benchmarks (00)
- 33 Environmental Design Review of the Olympic Facilities (00)
- 34 After the Games: Ongoing ESD Management at Homebush Bay and other Sydney Olympic Games Venues (00)

AFTER THE GAMES

ESD management of Olympic venues

In order to mount the Sydney 2000 Olympic and Paralympic Games, the NSW Government established new agencies (eg OCA and SOCOG) with special powers and required many existing agencies to operate in line with them. Planning and environmental laws were amended to facilitate large venue construction, rigid deadlines, tight security and successful staging of a world event.

This regime may have been appropriate for preparing and staging the Games, but it departed in significant respects from principles of public participation, accountability and access to information normally observed in Australian planning and environmental protection. After the imminent dissolution of Olympic agencies and the repeal of their Acts, the long-term management of Sydney Olympic venues will require a different approach.

The NSW Government is developing a new model, and GGW wants to ensure that future planning, management and regulation will be in keeping with the *Environmental Guidelines for the Summer Olympic Games* to give best possible environmental protection and maintain progress towards ecologically sustainable development.

GGW's report* reviews the current land and environment planning, management and regulatory regime at Homebush Bay; outlines desirable features of a post-Olympic regime; and suggests a range of measures to maintain and improve the environmental design performance of Sydney Olympic venues and facilities.

Areas it addresses include the urban core, Millennium Parklands, Bicentennial Park, Silverwater Nature Reserve, Olympic Village, Bay-West (Paycelands), Homebush Bay bed and waters, Lidcombe Liquid Waste Plant and off-Homebush Bay Olympic venues.

Its recommendations for the Homebush Bay Olympic site include the following:

- maintain all current ESD initiatives and provisions in the OCA Act
- extend Millennium Parklands to accord with GGW's 1996 proposal and formally reserve it under a Millennium Park Trust Act
- reserve the Brickpit area as a Nature Reserve

- extend Silverwater Nature Reserve as per National Parks Association proposal, protect with dog and cat proof fencing, exclude cycleways and constructed walking tracks
- isolate the remediated, but contaminated, Haslams Creek flood ponds from public by secure fencing
- bring beds and navigable waters of Haslams and Powell Creeks into ownership and control of Millennium and Bicentennial Park Trusts
- add adjoining private lands with nature conservation values to Millennium Park (eg 2SM and 2KY radio station wetlands) or protect with conservation agreements between owners and NPWS
- review SREP 24 and make it the planning instrument for all development in Homebush Bay area. It should provide for inclusion of northern shore of Parramatta River, eastern shore of Homebush Bay and potential recreational and green corridor links; maximum 12 000 car spaces; stronger development control in environmentally sensitive areas; Auburn Council planning control of Olympic Village and Australia Centre business park lands within urban core; consent powers for most other lands by Minister for Urban Affairs & Planning; long term restoration of original shoreline of Bay West (Paycelands) area and remediation of contaminated lands for later addition to Millennium Park.
- form an 'Olympic Park Authority' to succeed the OCA and manage the urban core at Homebush Bay; supervise the Olympic environmental 'legacy' obligations of owners and lessees of the Athletes Village residential area and the off-Homebush Bay Olympic venues - particularly the Velodrome and Criterium Track at Bankstown, Equestrian Centre at Horsley Park and the Shooting Centre at Cecil Park; and host an Advisory Committee for all Sydney Olympic venues
- determine future ownership of Water Reclamation and Management Scheme and related infrastructure at Homebush Bay by competitive tender with high environmental performance requirements
- Sustainable Energy Development Authority to provide advice, monitoring, research and other support to maintain operational efficiency of urban core and Olympic Village facilities
- Environment Protection Authority to continue as primary regulator for all Olympic sites, supervise environmental auditing of operations; and ensure exemplary state of the environment reporting in association with Olympic Park Authority, other agencies and local councils
- Lidcombe Liquid Waste Plant to meet its 1997 development consent conditions and confine toxic and odorous emissions within its own boundaries
- Sydney Harbour Catchment Management Board to establish a subcommittee to focus on catchment planning for the Homebush Bay area ♦ HL

* Prineas P, 2000. *After the Games - ongoing ESD Management at Homebush Bay and other Sydney Olympic Games Venues*. GGW2000, Sydney.

Green Games Watch

The Newsletter of Green Games Watch 2000

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GGW2000 acknowledges the financial assistance of
the Olympic Coordination Authority

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Print Post Approved
PP227619/0018

Issue # 11

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