



TIWEST

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SUBMISSION DOCUMENT



**WATER AWARDS 2006
CATEGORY 6: WATER RECYCLING AWARD**

TIWEST submission WATER AWARDS 2006

EXECUTIVE SUMMARY

Tiwest Joint Venture is one of the world's most successful mineral processing and manufacturing companies. The Company undertakes mining, mineral processing and manufacturing operations at Cooljarloo, Chandala and Kwinana in Western Australia. Titanium Dioxide Pigment is produced from minerals extracted and separated at the Chandala facility, prior to transport to the Pigment Plant which is located within the Kwinana Industrial Area. (KIA)

Using the environmentally preferred "chloride process" technology, the Tiwest plant currently produces over 100,000 tonnes per annum (tpa) of titanium dioxide pigment, and has State Government environmental approvals to expand to 180,000 (tpa). The uses for this important material include the production of plastics, paints, surface coatings, ceramics, industrial enamels, paper, cosmetics and food.

Tiwest is a long-standing member of the Kwinana Industries Council (KIC), which was established in 1991 to promote and contribute to the sustainable co-existence of Kwinana industry, the community and the environment, by offering a wide range of informational, advocacy, technical and community services to its members and the wider Kwinana community.

Through its' membership of the KIC, Tiwest is involved with 'Waterlink', a program launched by the KIC in conjunction with the Water Corporation and other government agencies to improve water efficiency and contribute to environmental management in the KIA. The Waterlink program resulted in the construction of the Kwinana Water Reclamation Plant (KWRP), which re-processes discharge water from the nearby Woodman Point wastewater Treatment Plant **for recycled water use** by companies such as Tiwest, BP, CSBP Wesfarmers and others, and facilitates a reduction of industrial wastewater discharged into Cockburn Sound by accepting approximately 6 million litres per day of wastewater from these operations.

In addition to Tiwest's involvement with the Waterlink program, it is also a prominent participant in the Kwinana Synergies Project ('Capturing Regional Synergies in the Kwinana Industrial Area') conducted by the Centre for Sustainable Resource Processing under the auspices of Curtin University. This has led to a number of synergies being implemented by Tiwest and a range of partner companies, **which have resulted in increased recycling of scheme water, and reduced scheme water usage at site**, recovery and recirculation of decant from process residue disposal, decreased wastewater production, and more environmentally conscientious production processes.

Tiwest also supports the PLOOM (Perth's Long-term Ocean Outfall Monitoring) program, which monitors the impact on the environment of treated wastewater disposed into the Sepia Depression located 4.2 kilometres off the coast of Kwinana. One of Tiwest's former environmental staff is an independent community member of the Sepia

Depression Ocean Outfall Landline (SDOOL) Stakeholder Liaison Group, which assists the Water Corporation in managing concerns regarding the discharges being monitored by PLOOM.

Given Tiwest's status as one of the largest users of scheme water in Western Australia (until 2002 it was in fact the largest), and a significant user of groundwater, any improvements in efficiency of water use that the company can implement **through accessing external supplies of recycled water, and / or on site water recovery and recycling** have the potential to impact positively on water resources and the environment.

The company's commitment to reducing its scheme and groundwater usage has grown in response to its identified desire to minimise its impact on groundwater and Cockburn Sound via the discharges that are a consequence of its mining and production processes.

The Kwinana site has significantly reduced its water usage with 1991 Tiwest consumption of almost 60 kilolitres of water per tonne of finished pigment product (TFPP), reduced by approximately 50% to 28.8 kilolitres per TFPP by year end 2005.

A broad range of practices and measures have been implemented over the last decade to ensure that the Company continues to meet its internally established targets to achieve more efficient use of water, and a site water strategy and plans are in place for further water efficiency initiatives.

In the area of community and workforce education, Tiwest along with other member companies of the KIC continues to direct a great deal of effort and human and financial resources into engaging and informing both groups, and where appropriate facilitating direct action to protect the environment and to remediate problems that have arisen from past industrial activities.

▪ **HOW TIWEST OPERATIONS ACTIONS HAVE CONTRIBUTED TO OPTIMAL USE OF AVAILABLE WATER RESOURCES**

Tiwest conducts operations at three sites, each of which requires different applications and levels of water usage. This entry will deal with each of these sites separately; however given that the Kwinana site uses the majority of water consumed by Tiwest, that site will be the primary focus of this entry.

Cooljarloo Minesite

The Cooljarloo Minesite north of Perth has a site specific Environmental and Community Relations Statement of Commitment. This statement covers a range of issues, including specific commitments to:

- Comply with legal requirements
- Prevent pollution of land and water
- Protect sites of cultural heritage
- Protect flora and fauna
- Conserve resources and minimise waste
- Undertake targeted environmental research to improve performance
- Progressively rehabilitate disturbed areas to a high standard

- Respond quickly and effectively to stakeholder concerns
- Communicate openly with employees, the community and regulatory authorities

The mine-site utilises water in a diversity of processes and techniques, ranging from watering rehabilitation areas, to dust control, to dredging used in the mining process.

In 2005/2006, one of the primary issues facing the mine operation has been the sustainable abstraction of groundwater. Actions have been taken to ensure that ground water levels do not fall below conservatively set datum 'trigger' levels, to protect groundwater using (phreatophytic) plants.

These measures included two bores drilled into the deep Yarragadee aquifer to replace those abandoned from the north mine borefield – an area where groundwater levels continued to rise through 2005. Additional superficial bores drilled in 2006 were planned to take advantage of the higher groundwater levels, caused primarily by higher than average rainfall in 2005, without approaching datum trigger levels.

Water extracted from the aquifers is used to 'float' the dredge and its extraction and consumption is optimised by maintaining a minimum practical open area for the dredge pond resulting in less volume required to float the dredge and minimising evaporation from the area open. The water is recycled through the pond system, infiltrating into the ground for repeated use. Water used to mobilise sediments through processing is returned to design holding cells where the excess water infiltrates into the coarse coastal sands whilst the entrained moisture within the clay fines material supports vegetative rehabilitation establishment without the additional consumption and application of water for plant growth.

As a result, in 2005, Cooljarloo was in full compliance with its Groundwater licence requirements, using an average of 21% of the superficial aquifer allocation (excluding SPQ accommodation allocation), and 32% of the Yarragadee allocation. (Refer table 2.7 from page 60 Tiwest Annual Environmental Report)

A second, important issue for the mining operation has been the Mullering Brook diversion – an intermittent stream that was diverted from its original course to enable dredge mining in the southern ore bodies.

The objective of this diversion was to ensure that the diversion channel did not become contaminated with excess sediment or other materials as it passed through the mining lease and operations. To this end, Diversion 7 was constructed in early 2006, replacing Diversion 6.

A sediment basin at the downstream end of the channel has been effective in trapping coarse sediment and enabling increased infiltration of the surface waters captured by the diversion, thus creating an in-situ groundwater recycling basin. Fine sediment remaining in suspension moves unimpeded through the basin when it overflows.

Studies have concluded that the level of sediment deposition from this environmental management approach, has had no impact on overall morphology or aquatic fauna. A review of the monitoring process is scheduled for completion during 2006.

Chandala Processing Plant

The Chandala plant separates the raw material provided by the Cooljarloo mine, and uses a synthetic rutile plant to upgrade ilmenite into high quality titanium dioxide pigment feedstock.

The Tiwest Chandala Environmental and Community Relations Statement of Commitment commit the organisation to:

- Legal compliance as a minimum
- Preventing pollution of land and water
- Protecting sites of cultural heritage
- Conserving resources and minimising waste
- Undertaking targeted environmental research to improve performance
- Responding quickly and effectively to stakeholder concerns
- Communicating openly with employees, the community and regulatory authorities

In respect of groundwater, Tiwest has been working towards returning groundwater quality back to measured background levels ever since a plume of contaminated water was discovered in 1994.

One of the primary recovery bores was shut down in 2005 on advice from Tiwest's hydrological consultant, as the increased salt levels had been restored to background levels.

In 2005, a sediment pump was installed in one area of the site to improve sediment retention and retention of any hydrocarbons from the compound. Monitoring of this indicates that the installation is working well.

Regular groundwater monitoring is undertaken across the property, and data reveals that increased levels of total dissolved solids (TDS) detected in 2005, appear to be independent of the Chandala processing activities.

A range of initiatives have however been implemented since 1997, including decommissioning Ponds 1 and 3, resealing of the caustic soda bund, and a dump slab for the Screen One Oversize which was constructed to improve housekeeping and recover process water. (Refer fig 3.19, page 113 of Tiwest Environmental Annual Report)

Water efficiency targets were established and met in 2005, with an efficiency of 3.36 kilolitres per tonne (kl/t) of Synthetic Rutile (target 3.4 kl/t) and 0.13 kl/t of Heavy Mineral Concentrate (HMC) - target 0.2 kl/t. These targets have been further reduced to 3.4 kl/t of SR and 0.13 kl/t of HMC for 2006.

A major factor in the improved efficiency has been the capture and recycling of wash down waters from the site truck wash down facility.

The Tiwest Chandala team also monitors a network of sampling sites to identify any changes to surface water quality.

Further activities undertaken to improve the quality of water discharged into stormwater ponds on the site include:

- Traffic areas being regularly swept to reduce dust and consequently the amount of material washed into site drains
- Established procedures to capture water from 'first flush' rain events
- Stormwater collection from various areas reclaimed and used as process water, (reducing the existing reliance on MISWSS and local groundwater extraction)
- Upgrades to Chandala's on-site Waste Water Treatment Plant, and
- Encouragement of water filtering vegetation such as bullrushes in both stormwater ponds to improve water quality and provide fauna habitat.

Water quality testing reveals that Chandala operations continue to have no discernible impact on water quality of the principle water bodies flowing through the Chandala property, Yal Yal Brook and Chandala Brook.

In 2005 Tiwest was a finalist and received a Special Commendation at the Department of Environment WA Environment Awards in the category 'Corporate Business Leading by Example'.

The nomination was based on an integrated community and government approach to conserving biodiversity and promoting sustainability within the Ellen Brook catchment.

This commitment to sustainability and biodiversity is evident in the wetland development activities undertaken since 1998 to either create or enhance existing wetlands on the Chandala property. During 2005, Tiwest also coordinated a tree planting day by students of the Gingin High School, re-battering the eastern side of the Yal Yal wetland to extend the period of inundation, and also constructed an overflow weir at the entry to the site Borrow Pit extension, to reduce further erosion potential.

Kwinana Titanium Dioxide Pigment Plant

The Kwinana Pigment Plant now produces in excess of 100,000 tonnes of titanium dioxide pigment per annum, in a range of grades suitable for a wide variety of national and international marketing requirements.

As one of the largest users of scheme water in Western Australia, Tiwest acknowledges its social responsibility to work towards the ongoing reduction of water usage requirements for all of its processes, particularly at the Kwinana site.

The Tiwest (Pigment Plant) Environmental Policy specifically commits the site to:

- Fulfilling all relevant statutory requirements
- Minimising pollution
- Openly communicating its performance to all stakeholders and
- Achieving continual improvement in environmental performance

Since commissioning in 1991, titanium dioxide pigment production at the Kwinana Pigment Plant has steadily increased through both incremental expansion of production lines, and debottle-necking initiatives.

As the plant has expanded, Tiwest's increase in 'scheme' water consumption, both 600 TDS and 200 TDS quality, from the Metropolitan Integrated Scheme Water Supply

System (MISWSS), has also increased and become a 'sustainability' focus for the environmental management team and business improvement teams at Tiwest.

The pigment plant has a business philosophy of continuous improvement in environmental performance which underpins its environmental policy and has developed a 'strategic water plan' which supports 5 key objectives for the company being:

- diversity of supply
- security of supply
- sustainability of supply
- water use efficiency, and
- cost competitiveness of supply.

In 1997 the Water Corporation sponsored a water options workshop to assess the interest in longer-term planning of all water issues for the KIA and this led to a co-operative approach between government, industry and the Water Corporation in developing a strategic direction for the KIA water supply and disposal.

The development of the KWRP – an initiative in which Tiwest played a key role - has been an important and highly effective measure that has allowed the organisation to substantially reduce its reliance on scheme water, and ***provide increased availability of metropolitan scheme water 'back' to the community, and contribute to the sustainability of the State's major metropolitan water resources.***

It is intended that further increased usage of recycled water from the KWRP, or similar sources such as further KWRP-style plants or localised water treatment plants (such as that constructed by OneSteel), aquifer storage and recovery, and groundwater trading, will help further reduce Tiwest's scheme water usage.

POTENTIAL FOR WIDER BENEFIT TO THE COMMUNITY

Tiwest was an enthusiastic supporter and participant in the WaterLink study and along with other industry members of the Kwinana Industries Council (KIC), and in partnership with the Water Corporation is continuing to drive these water efficiency opportunities and synergies within the Kwinana Industrial Area (KIA).

“A direct result of its involvement in this initiative, and its ongoing partnership with the Water Corporation, Tiwest Kwinana Pigment Plant has achieved a 44% reduction in MISWSS ‘scheme’ water demand”.

Another initiative pursued by Tiwest in its commitment to reducing its water demand and improving efficiency of its usage has been its involvement with the Centre for Sustainable Resource Processing through the “Capturing Regional Synergies in the Kwinana Industrial Area Report” – known locally as the Kwinana Synergies Project.

This important ongoing community project identifies potential synergies between existing industries in the KIA, including the recovery and reuse of one company’s by-products by another, or the shared use of a utility such as water.

As a signatory to the WA Sustainable Industry Group (WASIG) Cleaner Production Statement, Tiwest is committed to implementing such synergies as are identified as suitable and practicable for its manufacturing processes, and to date it has adopted thirteen such synergies.

These include:

- providing run-off water to the Western Power Cogeneration Plant for electricity generation, ***thus reducing water demand by that facility***
- accepting steam from the Western Power Cogeneration Plant for use in its own manufacturing product (***thereby reducing both power and water requirements on the metropolitan grid system***)
- providing ‘community’ MISWSS ‘scheme’ water to the Western Power Cogeneration Plant in return for waste water that it can use in its processes, ***thus freeing up more of the community supply***
- replacing scheme water with water from the KWRP, ***thus reducing demand on ‘community’ MISWSS ‘scheme’ water supplies***
- purchasing groundwater from CSBP ***instead of taking increased quantity of the ‘community’ MISWSS ‘scheme’ water***, and
- providing, scheme water, steam and surplus electricity to Nufarm Coogee for use in its manufacturing processes

The author of the Kwinana Synergies Project 2006 Status Report, Dick van Beers, cites Tiwest in Section 6 of the report, Collective KIA Strategy on Water Reuse, as having “achieved major water saving efficiencies prior to engaging in water synergies” (Refer to page 51, Capturing Regional Synergies in the Kwinana Industrial Area: 2006 Status Report).

The Australian Government Department of Environment and Heritage also cites Tiwest as an example of corporate sustainability on its website at <http://www.deh.gov.au/settlements/industry/corporate/eecp/case-studies/tiwest.html>.

Tiwest has recently participated in and contributed to a significant water resource workshop and planning study which aims to develop a planning strategy for water use

within the Kwinana industrial Area through to 2020. the study has as its primary objectives the identification and quantification of scenario based options to develop sustainable multi-quality water supplies, **and to promote and facilitate water recycling, wastewater disposal and reuse strategies for industries within the Kwinana Industrial Area.**

POSITIVE ENVIRONMENTAL IMPLICATIONS: PERFORMANCE

Water Use History

In terms of water use efficiency, Tiwest’s ‘total’ water consumption in its first year of operation (1991) peaked in excess of 60 kilolitres (kl) per tonne of finished pigment product (FPP) produced.

By 2005, this consumption had reduced to less than half the above figure, with 28.8 kl of water consumed per tonne of FPP.

During this period, titanium dioxide pigment production increased at the plant from a rated production of 54,000 tonnes per annum (tpa) FPP to over 105,000 tpa of FPP, with water consumption peaking at 3.0 Gigalitres(Gl) per annum in 2005.

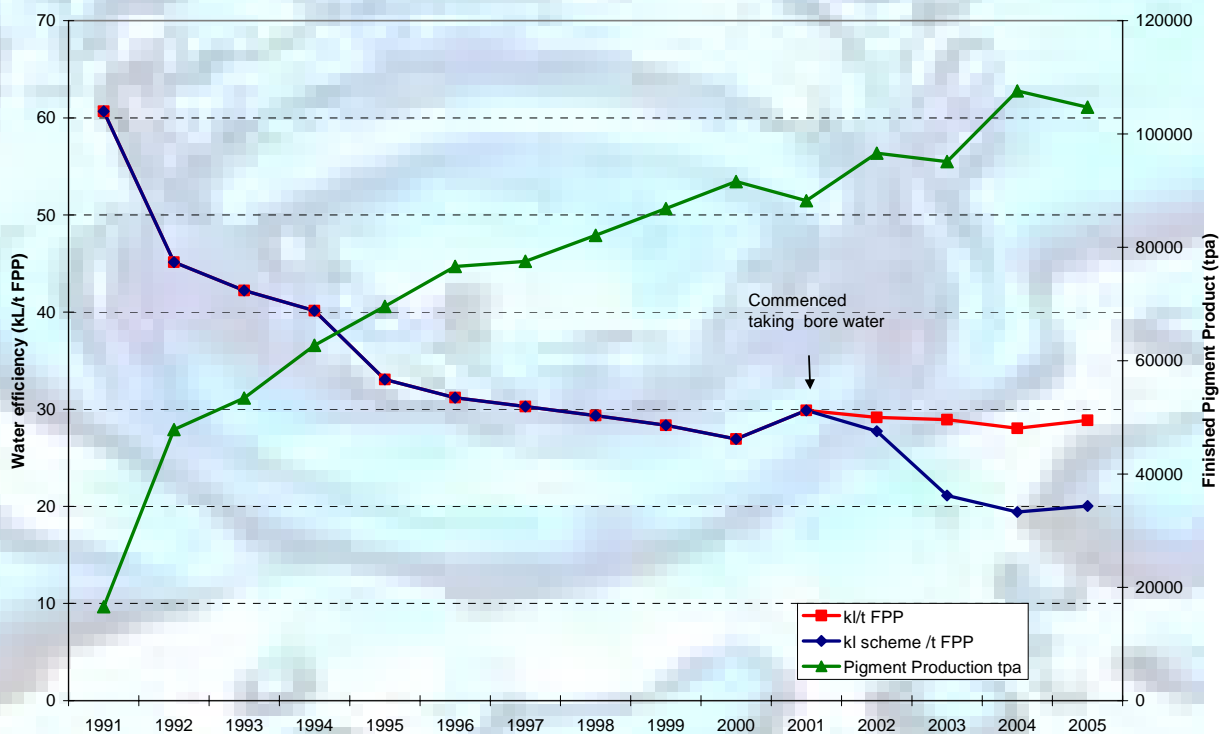


Figure 1 Water Efficiency and Pigment Production at Tiwest 1991 – 2005

Efficiency of water use has been improving at the Pigment Plant since commissioning in 1991.

Water is used in a diverse range of applications across the plant including:

- Process cooling
- Washing of the pigment product
- Boiler feed water for steam generation
- Slurry water for solids transport
- General plant process equipment and facility wash down
- Fire and emergency water reticulation system, and
- Potable water use.

Tiwest initiated its first review and audit of plant water use in 1995. As a part of that process, apart from identifying all the major uses for water at the site, it identified significant opportunities for reducing MISWSS water consumption.

The successful implementation of a number of the identified initiatives resulted in an intensified focus and further investigations during 1996.

As a consequence of these investigations, further opportunities were again identified for water savings and reuse.

The nett effect of these initiatives has seen the delivery of environmental and social benefits including significantly reduced 'community' water supply consumption.

The initiatives resulted in:

- reduced scheme water consumption ***through increased recycling & efficiency*** of the pigment washing phase
- identification of ***plant recycling / reuse opportunities with water used more than once in adjacent process areas***
- ***the recycling of discarded process waters*** and further use in specific applications
- the substitution of potable water with the use of the most appropriate water quality for particular processes
- the introduction of a groundwater supply circuit
- the use of alternative off-site groundwater sources - an industry water trading synergy initiative (Tiwest cannot access its own groundwater due to historical groundwater contamination, a legacy of a previous industrial facility which is no longer in operation), and
- ongoing investigations including:
 - consideration of using deeper groundwater
 - the potential for treating contaminated groundwater from beneath the site
 - non-process area surface water catchment and rooftop water catchment and ***recycling for high quality wash water and secondary wash water streams***, and

- the ***potential for on-site water purification and re-use.***

To continue to reduce Tiwest's demand on MISWSS water and to improve water use efficiency, Tiwest has evaluated yet a further number of alternative water supply options with two major initiatives identified and implemented since 2000 being:

- replacement of approximately 25% of the water requirements with groundwater from an adjacent industrial facility under a licensed water trading initiative (currently the only private water trading initiative within the KIA), and
- ***the replacement of a substantial proportion of the remaining MISWSS water demand for industrial purposes with treated and recycled wastewater*** from the recently commissioned Kwinana Water Reclamation Plant (KWRP).

The groundwater initiative was implemented in late 2001 and has resulted in the replacement of approximately 900ML per year of potable scheme water, which used to supply the Kwinana Pigment Plant (Figure 2).

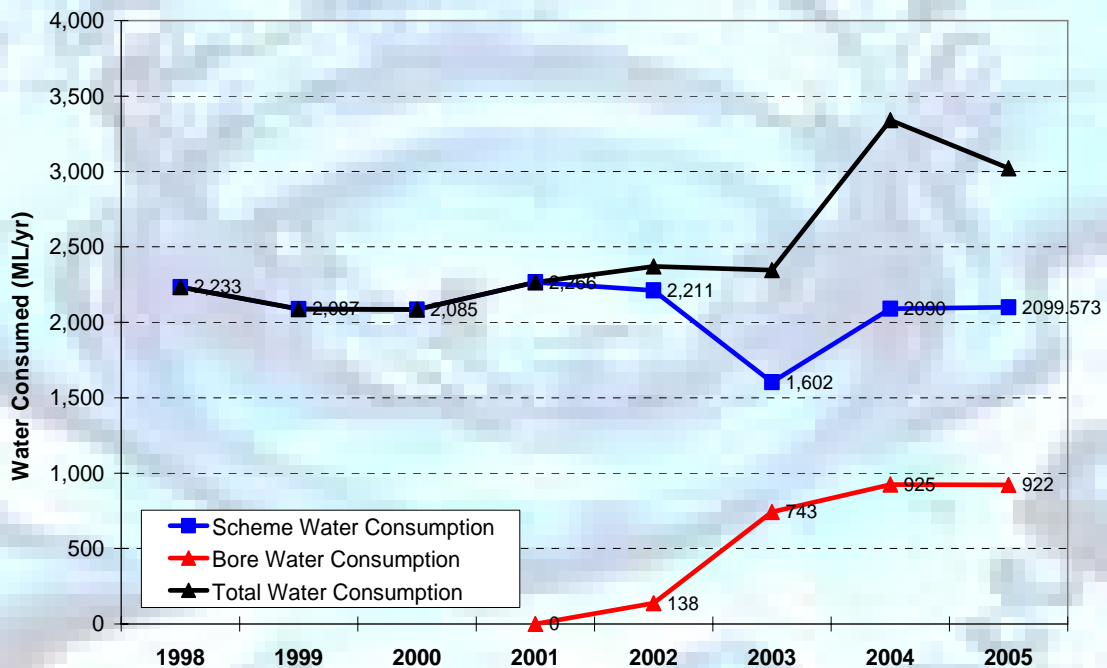


Figure 2 Water Supply Break-down at Tiwest 1998 - 2005

In 2005, ***Tiwest commenced taking recycled water from the KWRP and is currently under contract to take 2.2 megalitres per day.***

It has recently pursued and implemented a further 'temporary' option (to 30th June 2007) to take a further 2.8 megalitres per day of recycled water from the KWRP, until full industry contract demand for the first stage of the KWRP plant is committed. It has to date been taking approximately 1.3 megalitres of this additional capacity which is currently restricted by lower than normal production rates, and the fact that the plant is constrained by its current distribution system).

The KWRP recycled water quality is in fact supplied at a higher quality than that required for the production process, so most of the scheme water currently used in the Tiwest processing plant can be replaced with this recycled water, albeit currently at a higher purchase price than the MIWSS water supply contract price. This option is however currently limited by the available storage and reticulation capacity available on site for the various water qualities. A limited amount of scheme water is still however required for drinking water supply and the fire water ring main supply.

Other successful projects implemented for water recycling, reuse and alternative water use that have increased water use efficiencies have included:

- The ***use of recycled pigment contaminated water for wash water***
- the ***recycling and use of saline wastewaters (brackish water) for slurring and for wash down,***
- the commissioning of a counter-current washing process in pigment filtration,
- the ***re-use of microniser condensate in the pigment filtration phase***
- the installation of a reverse osmosis plant to process bore water into boiler feed water, and
- ***the installation of a recovery tank to exploit further water recycling and reuse opportunities.***

As a result of implementing these options, Tiwest can potentially, once fully implemented ultimately reduce its scheme water use to approximately 600 Ml per annum.

PROJECT CONTRIBUTION TO SUSTAINABLE WA WATER RESOURCES

Sustainability Contribution and Future Water Management

The biggest contribution Tiwest can make towards the sustainability of WA water resources is to continue to drive its water use efficiency, and ultimately become a zero discharge site with maximum recycling, processing of wastewaters and recycling and reuse of such processed wastewaters on site.

Tiwest Kwinana Pigment Plant is in the fortunate position where it has a 'closed loop' solid waste disposal circuit (filtercake residue at about 30% moisture is returned to the mine for incorporation in rehabilitate land cells), and the separation, processing and reuse of 'brackish' process discharge waters presents an opportunity for further development, as does increased thickening of the discharge residue circuit.

The initiatives taken to date however with:

- recycling of plant process water,
- recovery and reuse of brackish discharge water,
- purchase and reuse of recycled water from the adjacent KWRP plant, and
- pursuit of on-site on site water reuse,

have enabled Tiwest to improve its water use efficiency from in excess of 60 kl/t FPP produced to 28.8 kl/t FPP at the end of 2005.

In terms of current objectives, in 2006, Tiwest has established a water consumption target of 6,564 kl per day or approximately 2,400 MI per annum. (refer figures 4.15 and 4.16, pages 166/167 of Tiwest Annual Environmental Report)

This equates to a further improved water efficiency target of 21.5kl/t FPP, again down from the 28.8 kl/t FPP in 2005.

At a production rate of 110,000 tonnes per annum, Tiwest will therefore save approximately 4.2 GI of water per annum when compared with its consumption rate of 1991.

'This is approximately 10% of the capacity off the soon to be commissioned Water Corporation Desalination Plant'.

To achieve this aim in 2006, Tiwest intends to pursue a number of further initiatives including:

- on site wastewater processing and contaminant removal,
- process discharge thickening,
- a further water use audit,
- evaluation of the water use 'star' rating system,
- maximizing the reclamation of water from the process wastewater cycle,
- evaluating the identified non-process catchment management reclamation options, and
- along with other industries and the Kwinana Industries Council, the enthusiastic support of studies to apply industrial eco-efficiency principles to identify new opportunities for industry wastewater exchange, reuse and the potential reclamation and reuse of contaminated groundwater.

The most opportune initiative in the short term, will be the expansion of the recycled water capacity of Kwinana Wastewater Reclamation Plant from its current 16.7 megalitres per day capacity to 27 megalitres per day, thus returning a further 3.75 gigalitres of water per annum to the 'community' MISWSS 'scheme' water supplies.

Subject to price competitiveness against other water supply and disposal options, this option will form the basis for ongoing capital investment in multiple water quality reticulation systems at the Tiwest pigment plant and other industrial facilities in the KIA.

COMMUNITY / STAFF INNOVATION TO PROMOTE WATER EFFICIENCY

In addition to its operational commitments to using less water and altering its supply to include more environmentally conscientious sources, Tiwest has invested considerable time, money and resources in informing and enrolling its staff in its various water saving initiative programmes, and in educating and informing the wider public.

As a signatory to the WA Cleaner Production Statement since 2001, Tiwest is committed to promoting cleaner production and eco-efficiency in Western Australia. It has also made a stated commitment to improving workforce awareness and commitment to its ecological goals. To this end, Tiwest has implemented a broad range of programs designed to engage the staff and enhance their awareness of and participation in its proactive measures. These include:

- ◆ mandatory health, safety and environmental inductions for all employees and contractors
- ◆ mandatory monthly staff 'Team Talk' meetings, which include information on Tiwest's environmental performance
- ◆ daily and weekly production meetings involving key production staff that includes discussion on environmental issues
- ◆ review of progress against environmental KPI's at management meetings
- ◆ inclusion of environmental information on the Kwinana intranet site
- ◆ the compilation and production of its Annual and Triennial Environmental and Operations Report to Government, and
- ◆ the compilation and production of annual groundwater reports

Tiwest further recognises that the industrial and residential communities surrounding its operations are key stakeholders in the operation of the plant.

As a responsible operator, Tiwest conducts its affairs so as to ensure that all members of the public are, as a minimum, protected to the extent of prevailing statutes, regulations and standards, although in most instances Tiwest elects to adopt higher internal standards of its own against which it regularly audits.

Community involvement and information practices undertaken by Tiwest include:

- ◆ Representation on the Executive Group of the Communities and Industries Forum – Rockingham/Kwinana, which meets bimonthly to discuss issues of mutual importance
- ◆ Active participation in the Kwinana Industries Council, including representation on the Executive, and the Community Relations Advisory Committee, Environment and Planning Committee, Kwinana Industries Education Partnership (KIEP) , Kwinana Industries Mutual Aid and the Kwinana Industries Eco-efficiency Committee (formerly KIC Synergies Project).
- ◆ Chamber of Commerce and Industry membership, with representation on the Chemical Industries Committee and the Environmental Management Committees
- ◆ Open days in which the community and school groups are invited on-site to tour the facilities
- ◆ KIEP facilitated school tours and industry awareness and education initiatives such as the recent Classroom in Industry initiative

- ◆ Offering work experience to high school and university students, including a range of environmental projects including groundwater and environmental awareness projects, and an
- ◆ Internship for Murdoch University Environmental Science students.

Further plans for 2006 also include:

- ◆ The ongoing development and sponsorship of local conservation projects with schools, and
- ◆ Sponsorship of the Ribbons of Blue regional program, specifically the Wetlands Restoration Action Projection (WRAP), within the Kwinana / Peel catchment

In conclusion, Tiwest Kwinana Pigment Plant has demonstrated considerable commitment to engaging and informing the community in its 15 years of operation in Kwinana, as well as on the Cooljarloo and Chandala sites.

Its activities in sponsoring ongoing programs and participating in important initiatives such as the KIC Water Planning Study act as further proof that the organisation has an ongoing commitment to improving its performance further in all environmental aspects of its operations but with a significant commitment to improved water usage and efficiency.

SUPPORTING DOCUMENTATION:

Item No.	Description
1.	Figure numbers 4.15 and 4.16 from Tiwest Annual Report
2.	pages 21,28 and 29 from Capturing Regional Synergies in the Kwinana Industrial Area: 2005 Status Report
3.	Page 51 from Capturing Regional Synergies in the Kwinana Industrial Area: 2005 Status Report
4.	KIA Water Planning Study Scope
5.	Media Article: 'Water use talks timely'
6.	Media article "Tiwest adding value to WA's economy" and Tiwest's Water Efficiencies Awareness - Training Module
7.	Testimonials – Kwinana Industries Council and Curtin University
8.	Press Release: KIC Excellence in Education Compact recognised as Australia's best and KIEP letter
9.	Editorial for Excellence in Industry supplement 2003 and Tiwest Company profile brochures

SUPPORTING DOCUMENTATION









