

TABLE 2: Map of 2004 EIP Items carried into EIP 2007-2009

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2004 EIP		Status Comment	EIP 2007 - 2009					
2004 EIP Item No.	2004 EIP Item Description	Status at Oct 2007	Segment	Aspirational Goal	Objective	Strategy	Target	Quality Assurance/ compliance
WR03	Segregation of Salt water streams from the runoff water system	Work has been implemented on site as part of the Water Master Plan projects. Further segregation of salt water streams is linked to the proposed NWP and is included in EIP 2007-2009.	Water Management	Maximise efficient use of water resources and further improve quality of effluent streams	Reduce dissolved salt of runoff and process water streams to enable optimal current and future reuse of recycled water	Continue activities to segregate salt water streams from runoff and process water streams	Combined DAF1, DAF2 effluent streams meeting TDS of 1800ppm (average) and 3000 (daily max)	Proposed NWP Trade Waste Specification
WR08	Re-use of treated Refinery runoff water in fire system	This project is linked to the proposed NWP and is included in EIP 2007-2009.	Water Management	Maximise efficient use of water resources and further improve quality of effluent streams	Reduce potable water consumption	Continue to progress planning for Northern Water Plant in conjunction with Barwon Water	Subject to relevant Federal, State and local authority approvals	EREP, waterMAP
WR12	Sewer discharge capacity increase to allow redirection of runoff water to Barwon Sewer	This project is linked to the proposed NWP and is included in EIP 2007-2009.	Water Management	Maximise efficient use of water resources and further improve quality of effluent streams	Reduce potable water consumption	Continue to progress planning for Northern Water Plant in conjunction with Barwon Water	Subject to relevant Federal, State and local authority approvals	EREP, waterMAP
AG03	Steam system optimisation to reduce steam and condensate loss_ Annual progress reporting.	Steam system improvements continue to be sought by the refinery and further opportunities will be reviewed as part of EIP 2007-2009.	Energy & Greenhouse Gas emissions	Continue to drive efficient energy use and reduction of Greenhouse Gas (GHG) emissions from refinery operations	Further Improve Energy Efficiency to reduce GHG emissions	Seek opportunities for further reduction of refinery steam use	Aspire to overall refinery energy use reduction per barrel feedstock processed by end 2009	EREP, EEO Act, ISO 14064
WM01	Disposal of spent RCCU Catalyst for reuse in concrete	Much work and time has been invested to date and the refinery is committed in EIP 2007-2009 to continue to seek opportunities for re-use of RCCU catalyst.	Waste Management	Drive continuous improvement in environmental waste management, reduction and resource recovery	Divert waste from landfill by improved waste segregation and increased recycling	Continue to seek opportunities for re-use of spent RCCU catalyst to divert from landfill	Targets as per WRAP	WRAP
WM02	Finalise Refinery composting procedures and incorporate into the management system.	Procedures have been developed for the Schoe Park compost management area along with inclusion of specific EPA Licence conditions for re-use of the compost. A 3rd-party review of the composting process was undertaken in February 2006. However, the scope of the review did not include the compost re-use area at the refinery, which the independent auditor considers is also part of the composting process, and this is identified as a gap and has been included for action in EIP 2007-2009.	Waste Management	Drive continuous improvement in environmental waste management, reduction and resource recovery	Divert waste from landfill by improved waste segregation and increased recycling	Continue to improve Schoe Park composting process	Complete review in 2008	EPA licence
WM05	Review of Composting	see comment above, linked to WM02.	Waste Management	Drive continuous improvement in environmental waste management, reduction and resource recovery	Divert waste from landfill by improved waste segregation and increased recycling	Continue to improve Schoe Park composting process	Complete review in 2008	EPA licence

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AP04	Carry out detailed design and install additional separation facilities. (RCCU Particulates project)	This project has been completed in Q2 & Q3 2007, during the EIP transition phase and is ready for verification.	Air Quality	Improve ambient air quality by continuing to reduce air emissions from the refinery	Continue to improve quality of air emissions from the refinery	Upgrade the cracker (RCCU) particulate separation facilities	Particulate emissions below 50mg/m3 from 30 April 2007	EPA licence
AV04	Review LDAR Program with risk based approach to identify improvements, include investigate portable VOC monitors for fugitive emission detection	Work on LDAR improvement continues and is included in EIP 2007-2009.	Air Quality	Improve ambient air quality by continuing to reduce air emissions from the refinery	Continue to improve quality of air emissions from the refinery	Aim to further reduce process fugitive emissions where practicable via improvements to the leak detection and repair (LDAR) program	Review and enhance LDAR program in 2008	EPA licence
AV14	Tanks connected to vapour recovery system	The outcome for this item is VOC emission reduction from gasoline tanks and the EIP item has been updated to reflect the control of emissions at the source, as per the amended EPA licence.	Air Quality	Improve ambient air quality by continuing to reduce air emissions from the refinery	Continue to improve quality of air emissions from the refinery	Implement the volatile organic compound (VOC) emission reduction project	VOC emissions less than 750 tonnes per year from refinery tanks and VRU by end 2009 as per EPA licence	EPA licence
GW01	Complete accelerated tank inspection and repair program	The accelerated tank inspection & maintenance program continues and much progress has been made. The EIP 2007-2009 has been expanded to include further review / enhancement of overall primary source management programs.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Reduce non-aqueous (undissolved) phase hydrocarbon on-site	Further review/enhancement of primary source management systems, controls, programs and procedures	Minimise potential for impacts to soil & groundwater resulting from loss of containment	Groundwater Clean Up Notice
GW05	Develop plan to implement interception trench integrity report recommendations	Future actions for the Groundwater Interception Trench (GIT) and Phase Separated Hydrocarbon (PSH) removal are managed as part of the EIP and the Section 62A clean-up notice and Section 53V Audit under way at the site, which incorporates boundary containment measures.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Containment of on-site impacts and management of off-site soil & groundwater impacts	Maintain effective boundary containment and control measures	Prevent further migration of impact off-site	Groundwater Clean Up Notice
GW07	Develop and implement plan for active on-site remediation	Work on this item continues and is updated for EIP 2007-2009.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Reduce non-aqueous (undissolved) phase hydrocarbon on-site	Review and enhance strategies for long term recovery of on-site non-aqueous phase liquid	Implement enhanced strategies	Groundwater Clean Up Notice
GW09	Conduct a Corio Bay sediment & marine fauna study to assess any impact from contaminated groundwater	Work on this item continues and is updated for EIP 2007-2009.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Containment of on-site impacts and management of off-site soil & groundwater impacts	Continue investigations, detailed studies and Ecological Risk Assessment (ERA) to determine if historical impact poses potential risk to Corio Bay	Quantification of Risk and develop site specific ecological investigation levels	Groundwater Clean Up Notice

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GW10	Develop Ecological Investigation Levels (EILs) for hydrocarbon and other potential contaminants of concern.	Work on this item continues and is updated for EIP 2007-2009.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Containment of on-site impacts and management of off-site soil & groundwater impacts	Develop risk based management plans to minimise impact on the receiving environment based on data and outcomes of the ERA	Management Plans in place	Groundwater Clean Up Notice
GW12	Install an intervention trench that ties the northern end of the central intervention trench into the southern end of the northern intervention trench	Future actions for the Groundwater Interception Trench (GIT) and Phase Separated Hydrocarbon (PSH) removal are managed as part of EIP and the Section 62A clean-up notice and Section 53V Audit under way at the site, which incorporates boundary containment measures.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Containment of on-site impacts and management of off-site soil & groundwater impacts	Maintain effective boundary containment and control measures	Prevent further migration of impact off-site	Groundwater Clean Up Notice
GW21	Clean-up of off-site contaminated soil and vegetation	Future actions for off-site clean-up are managed as part of EIP and the Section 62A clean-up notice and Section 53V Audit under way at the site, and will be directed by the Ecological Risk Assessment (ERA) outcomes.	Soil & Groundwater	Ensure historical soil & groundwater impact is managed effectively in a risk based framework and that the potential for future impact is minimised	Containment of on-site impacts and management of off-site soil & groundwater impacts	Develop risk based management plans to minimise impact on the receiving environment based on data and outcomes of the ERA	Management Plans in place	Groundwater Clean Up Notice
O10	Tank 251 odour removal	Odour investigation and control procedures continue to be implemented at the refinery and there is opportunity for control of odours at their sources in EIP 2007-2009.	Community Amenity	Ensure refinery activities do not detract from the amenity of the surrounding community	Reduce emissions of odours attributable to the refinery	Continue to reduce identified odour sources where practicable	No odours offensive to the senses of humans detected off-site	EPA Licence
CR15	Analysis of truck movements	Analysis of truck movements overall was addressed by Vic Roads and the Geelong Bypass is under construction. The refinery seeks to understand tanker access to/from the refinery post completion of the bypass and, if possible, influence tanker route selection.	Community Amenity	Ensure refinery activities do not detract from the amenity of the surrounding community	Reduce noise levels attributable to the refinery	Investigate if tanker truck movements to/from the refinery can be influenced to minimise access to residential areas	Undertake investigation in 2008	
SL01	Review the implementation of the Refinery sustainable land management program	The SLMP continues to be implemented and a review was undertaken in 2005. The independent EIP verification found opportunities to improve the consultant's review. The refinery seeks to undertake another review of the SLMP and continue its implementation in EIP 2007-2009.	Community Amenity	Ensure refinery activities do not detract from the amenity of the surrounding community	Continue to improve site boundary aesthetics where practicable	Continue implementation of the refinery's sustainable land management plan	Review outcomes of the SLMP program in 2008 and determine future improvements and opportunities	SLMP

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ER01	Complete the implementation of action items arising from the refinery's safety case preparation	The actions from the initial safety case submission have been addressed, the refinery's Major Hazard Facility (MHF) safety case has been revised and is close to submission to VWA. Specific safety actions are not relevant to environmental improvement.	Proactive Environmental Management	Continue to implement effective environmental management systems to continuously improve environmental performance, prevent the occurrence of incidents and facilitate rapid emergency response	A safety case covering the refinery has been prepared for the Major Hazards Facility (MHF) licence. This process is overseen by the Victorian WorkCover Authority. This is described in the Proactive Environmental Management section of EIP 2007-2009.