

Managing stormwater pollution from industrial areas – a case study review

Table 1 - Case study elements – approach and processes (additional information is available for each case study)

Elements	Hume City Council	City of Greater Dandenong	City of Whittlesea	Mornington Peninsula Shire
Case study name	Cleaner Creeks, Everyone's Business	Source pollution monitoring in Industrial Areas	Thomastown Industrial Estate Pollution Monitoring and Education Project	Mornington Peninsula Shire Innovative Water Quality Assessment
Location	Campbellfield and Craigieburn Industrial Estates	Two main industrial zones in Dandenong South	Thomastown industrial estate	Commercial and industrial precincts in the Tanti Creek catchment and Mornington township region
Industry types (examples)	Auto wreckers Materials recyclers	Motor mechanics Spray painters Powder coaters	Auto wreckers	Food businesses Boat wastewater
Pollutants (examples)	Hydrocarbons Heavy metals	Illegally dumped rubbish Zinc, Lead Hydrocarbons	Hydrocarbons Heavy metals	Faecal matter, E. coli Algal blooms
Common driver and objective	Pollution in stormwater runoff from industrial catchments and consequently in receiving waters prompted Councils to identify and manage pollution sources.			
Local drivers	<ul style="list-style-type: none"> Merri Creek Waterway Improvement Plan Council's Integrated Water management Plan 	Stormwater wetland monitoring study (Melbourne Water, EPA and CAPIM)	<ul style="list-style-type: none"> Council's Integrated Water management Plan Merri Creek Waterway Improvement Plan 	<ul style="list-style-type: none"> EPA beach reports (poor water quality on peninsula beaches) Council's Integrated Water management Plan and Strategic Plan Action plan for the Yarra River and Port Phillip Bay (2012)
Approach	Stormwater monitoring and business education program 2016 - 2018	Stormwater monitoring and business education program, with follow up compliance monitoring 2014 - 2018	Stormwater monitoring and business education program 2014 - 2016	Stormwater monitoring and business education program 2013 – 2015 and ongoing
Monitoring and Investigation	Periodic sampling of 10 stormwater drains (for heavy metals and hydrocarbons).	<ul style="list-style-type: none"> Installation, retrieval, and interpretation of results from 750 passive (activated carbon pad) samplers over an 18 month period. Subsequent ongoing monitoring. 	Manual grab samples and deployment of 12 passive samplers testing for sediment, hydrocarbons and heavy metals.	<ul style="list-style-type: none"> Monitoring of dry weather flows in stormwater drains using ammonia passive samplers to identify high-risk sub-catchments DNA investigations to test for human faecal pollution Site inspections for food businesses
Education/ engagement	<ul style="list-style-type: none"> Visited 220 businesses Face-to-face education visits Random unannounced education visits Educational flyer Verbal questionnaire 	Identified source polluters and pro-actively engaged target stakeholders: <ul style="list-style-type: none"> Increased presence of compliance officers in the field Letterbox drops Face- to-face meetings. 	<ul style="list-style-type: none"> Education twice per year for the whole industrial estate (400 businesses) Face-to-face meetings 	<ul style="list-style-type: none"> Food business survey and site inspections Development and delivery of an education program including face-to-face visits, information kits, drain labelling and the development of new infrastructure standards.