



anglesea's nest egg
peregrine falcons return to the nest box

alcoa anglesea

environment report

august

2008



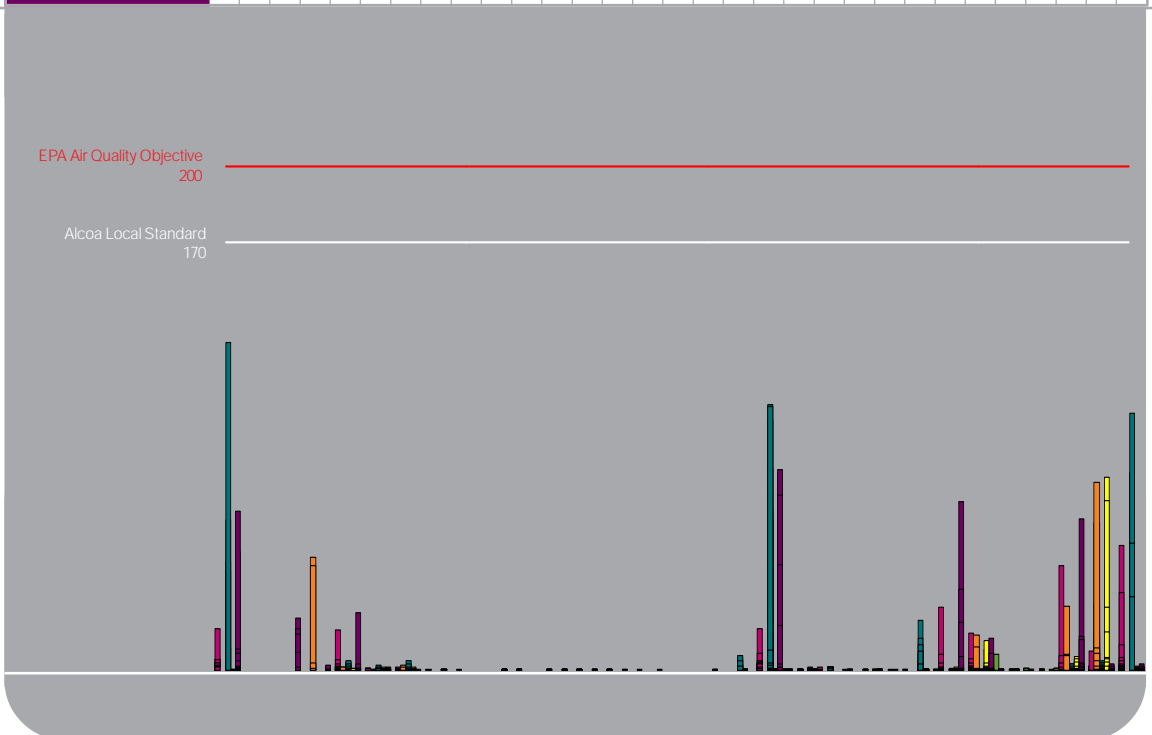
australia's aluminium

air

Air Monitoring	Average	Maximum
Stack Monitors		
Opacity g/m ³ 10-minute average	0.063	0.294
Stack SO ₂ kg/min 1-hour average Licence limit 100kg/min	41.92	87.56

Ambient Monitors	Average	Maximum
SO ₂ 1 hour ppb		
Community Centre	< 1	6
Primary School	< 1	50
Mt Ingoldsby	< 1	75
Scout Camp	3	130
Camp Wilkin	< 1	77
Camp Road	1	80

Ambient Monitors																															
SO ₂ Maximum 1 hour averages (ppb)																															
Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Community Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0	0	0	0	0	6	1	1	-	-
Primary School	16	-	-	-	16	1	1	0	0	0	0	0	1	1	0	0	0	0	17	0	1	0	0	0	25	15	1	0	42	8	50
Mt Ingoldsby	0	0	0	45	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	26	75	0
Scout Camp	130	-	-	-	4	2	4	0	0	0	0	0	0	0	0	0	0	6	106	0	1	0	0	20	1	0	0	1	2	4	102
Camp Wilkin	0	-	-	-	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	12	0	0	6	77	2
Camp Road	63	0	21	2	23	1	0	0	0	0	0	0	0	0	0	0	0	0	80	1	0	0	0	0	67	13	0	0	60	3	2



water



Water Storage

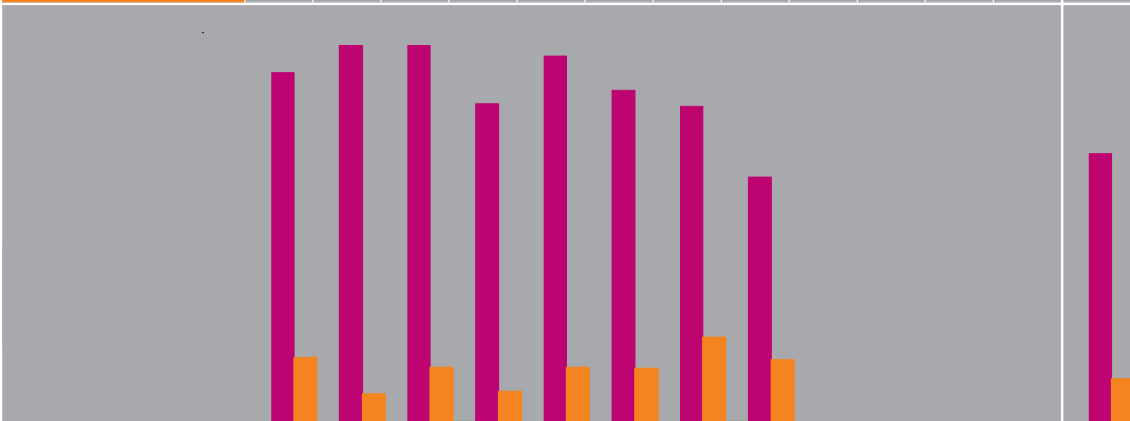
Barwon Water storage levels for the Geelong system at 30.3% capacity. Stage 4 winter water restrictions with an exemption to permit limited residential garden watering are in force.

Water Discharge	August	Total
ML		
Ashponds (SP1)	132	1115
Mine (SP4)	0	0.12

Water Monitoring 26/08/2008	SP1 Ashpond		SP4 Mine		SP3 Final	
	EPA limit	Lab Result	EPA limit	Lab Result	EPA limit	Lab Result
pH	4-10	8.6	3-9	no	5-9	7.4
Susp. Solids	100	< 4	100	discharge	30	< 4
Colour	50	4	50	at	50	4
Aluminium	10.00	0.22	10	time	5.50	0.05
Iron	10.00	0.34	20	of	4.00	0.03
Zinc	0.40	< 0.01	2.0	sampling	0.30	0.01

WATER WATER USAGE PER MONTH (ML)

Date	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
Town Water	1.4	0.9	0.9	2.2	1.0	0.9	1.7	2.2					11.2
Bore Water	279	304	305	254	292	265	252	196					2147
Mine Water	53	24	45	26	45	44	69	51					357



peregrine falcon



Our beloved Peregrine Falcons are back for 2008 with Havoc and Sheila returning to their purpose-built nest box on the water tower at Alcoa Anglesea.

Running a little behind schedule this year, our feathered couple had a disruptive pre-season only showing up at the nest box on the odd occasion. The pair usually have a consistent presence at the nest box from mid-July with displays of courtship and preparation of the scrape.

However once settled in Sheila took no time to get down to business and lay eggs number one and two. The female usually lays one egg every 48 hours so we expect eggs number three and maybe four in first few days of September.

Whilst Peregrines can lay anywhere from two to six eggs, the average number is four. Young pairs often only have two eggs in their first breeding

season, and then increase to three or four eggs in subsequent years. Since her arrival at Alcoa Anglesea in 2004, Sheila has laid four eggs every year.

As they say, 'don't count your chickens before they hatch'...or in this case falcons. Despite laying four eggs, hatching success has been mixed with only one and two eggs hatching in 2006 and 2007 respectively. Fingers crossed for a better result in 2008.

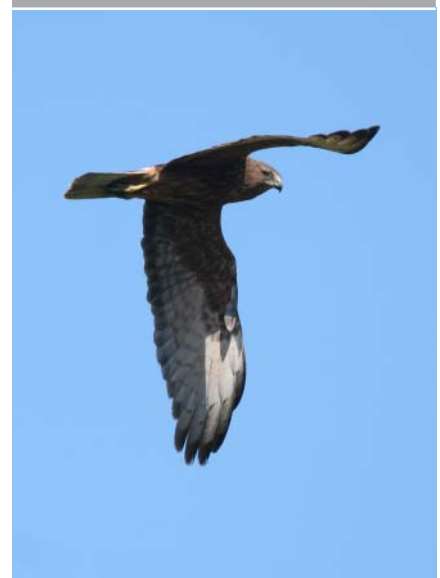
The webcam at www.alcoa.com/falcons is now back online providing us images of day-to-day life in the Peregrine Falcon nest from the arrival of the first egg until the last fledgling departs. Online for the full breeding season in 2007, the webcam proved increasingly popular from its debut becoming the highest hit web page on www.alcoa.com/au for the month of October.

ANIMAL OF THE ANGLESEA HEATH

SWAMP HARRIER (*Circus approximans*)

- Size: 55 cm
- Description: mainly dark brown above with a prominent white rump; the Swamp Harrier is recognised in flight by its long and broad wings with 5 'fingers' on the wing tips
- Distribution: Australasia and the South Pacific
- Habitat: terrestrial wetlands often in deep swamps with emergent reeds and open water
- Food: birds and eggs, large insects, frogs, reptiles and small mammals up to the size of a rabbit
- Breeding: September to December; the nest of the Swamp Harrier is made of straw and grasses, hidden above the water in dense reeds in a swamp; usually nest in single pairs
- Did you know? Swamp Harriers are easily disturbed at the nest and will abandon their eggs and even downy young if approached by people

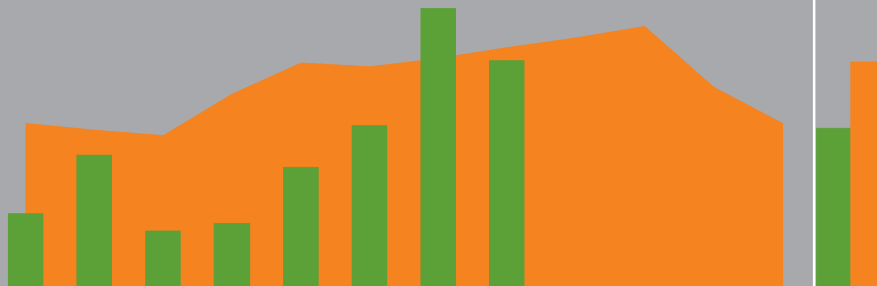
SWAMP HARRIER



LAND

RAINFALL (mm)

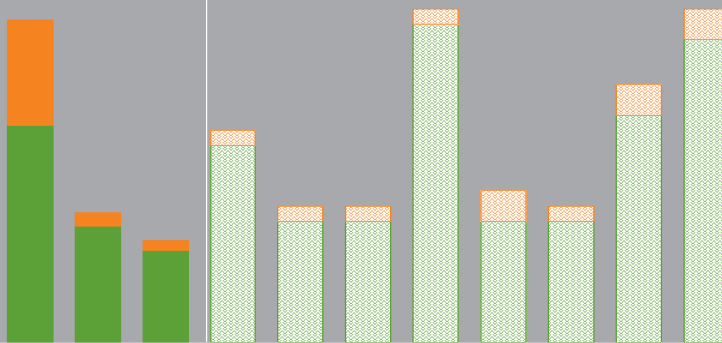
Month	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
2008 Rainfall	19.8	35.8	15.2	17.3	32.5	43.8	75.8	61.6					301.8
1968-2007 Average	44.5	42.7	41.1	52.5	61.0	59.9	62.2	65.3					429.1



WATER

TOWN WATER USE (ML)

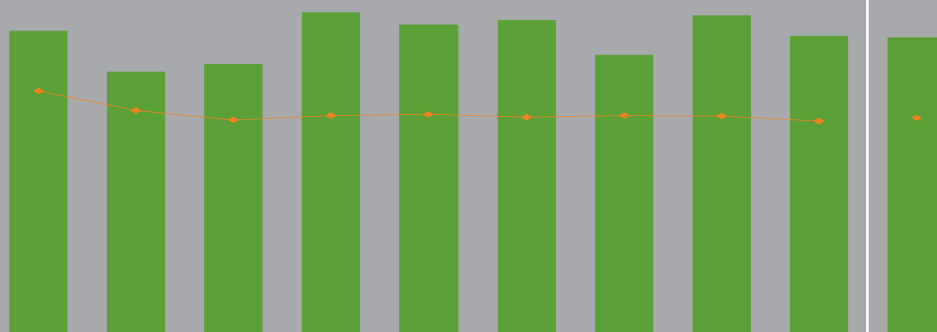
	2000	2007	2008	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Process	23.9	12.8	10.1	1.3	0.8	0.8	2.1	0.8	0.8	1.5	2.0				
Amenity	11.6	1.5	1.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2				



AIR

GREENHOUSE GAS (GHG) TOTAL (Mt) & GHG EMISSION EFFICIENCY (t/MWh)

	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008
GHG Mt	1.42	1.23	1.27	1.50	1.45	1.47	1.31	1.49	1.40	1.39
◆ GHG t/MWh	1.34	1.24	1.19	1.21	1.21	1.20	1.21	1.20	1.18	1.20



environmental improvement

Environmental Management Targets	August	2008 YTD	Forecast	2008 Target
Reportable Environmental Incidents	0	0	0	0
Monthly EHS ASAT Audit Completion (%)	100	100	100	90
Air Emission Targets	August	2008 YTD	Forecast	2008 Target
Ambient SO ₂ (no. readings > 200ppb)	0	0	0	0
Stack SO ₂ (no. hrs > 100kg/min)	0	0	0	0
SO ₂ Load Reductions (lost MWh)	998	10879	16319	N/A
GHG Efficiency (t CO ₂ e/MWh)	1.22	1.20	1.20	1.20
Opacity (10 min av > 0.25g/m ³ normal operation)	0	0	0	0
Water Targets	August	2008 YTD	Forecast	2008 Target
Town Water (ML)	2.2	11.2	16.8	14.2
Bore Water (ML)	196	2147	3221	2370
Waste Targets	August	2008 YTD	Forecast	2008 Target
Waste to Landfill (t)	0.0	4.5	6.8	8.0
Solid Prescribed Waste to Landfill (t)	0.0	0.0	0.0	0.0
Mine Rehabilitation Targets	August	2008 YTD	Forecast	2008 Target
2008 Area to Clear (ha)		0.0		0.0
2008 Area to Rehabilitate (ha)		0.0		0.0
2007 Mine Rehabilitation Species Richness (%)		N/A		100

OUR ENVIRONMENT AND OUR EMPLOYEE

Congratulations Neil on winning the site's Make an Impact competition. Was this your first experience using the Make an Impact calculator? This was the first time I used the calculator and a thank you to Maryann who help me work my way through it.

Any specific initiatives at home that have reduced your carbon footprint? When the small Bayonet Cap fluoro globes came on the market we replaced all of our candle globes. Not only were they cheaper to run, I really can't recall replacing them whereas the candle globes would blow every 2 -3 weeks ending up in landfill. We have always been conscious of the energy rating and yearly running costs that are on the front of appliances when purchasing them. Draughts were a problem living in the country so door seals were installed. And good quality drapes on the windows which helps with not only keeping the warmth in but keeping the house cool in the summer months.

What is your advice to others about the Make an Impact program? The Make an Impact program is a great reminder of your carbon footprint (the black balloons we see on TV), how to be mindful of the type of appliances you select (hot water units, dishwashers, air conditioners) and the way you use them.

...NEIL CARLSON

