

WEST COAST (PARINGA: GROUND HUNTING)			WEST COAST (COPLAND: GROUND HUNTING)			NORTHLAND (PUKETI: AERIAL 1080)		
PLANNING COSTS	DOC STAFF	OPERATING	PLANNING COSTS	DOC STAFF	OPERATING	PLANNING COSTS	DOC STAFF	OPERATING
Input/ checking Conservancy/ Head Office strategies			Input/ checking Conservancy/ Head Office strategies			Input/ checking Conservancy/ Head Office strategies		
Budgetary approvals Conservancy/ Head Office			Budgetary approvals Conservancy/ Head Office			Budgetary approvals Conservancy/ Head Office		
Selection of areas (maps, aerial photos, boundaries)			Selection of areas (maps, aerial photos, boundaries)			Selection of areas (maps, aerial photos, boundaries)		
Public relations (brochures/ press releases)			Public relations (brochures/ press releases)			Public relations (brochures/ press releases)	360	1500
Meetings (staff/ hunters/ landowners/ community)			Meetings (staff/ hunters/ landowners/ community)			Meetings (staff/ landowners/ community groups)	3975	
Statutory consents/ public notification			Statutory consents/ public notification			Statutory consents/ public notification	30	694
Budget analysis			Budget analysis			Budget analysis	90	
Unspecified	180	268	Unspecified	150	68	Unspecified		
Total	180	268	Total	150	68	Total	4455	2194

WEST COAST (PARINGA: GROUND HUNTING)			WEST COAST (COPLAND: GROUND HUNTING)			NORTHLAND (PUKETI: AERIAL 1080)		
SUPERVISORY COSTS	DOC STAFF	OPER-ATING	SUPERVISORY COSTS	DOC STAFF	OPER-ATING	SUPERVISORY COSTS	DOC STAFF	OPER-ATING
Hiring hunters			Hiring hunters			Poison drop/ airstrip supervision	780	
Showing hunters boundaries etc.			Showing hunters boundaries etc			Closure of area (boundary/ access patrol)	2280	150
Collecting/ destroying/ recording "tokens" (eg tails)			Collecting/ destroying/ recording "tokens" (e.g. tails)			Unspecified		
Random checking of hunters' records etc			Random checking of hunters' records etc.					
Unspecified	862	1022	Unspecified	742	654			
Total	862	1022	Total	742	654	Total	3060	150

WEST COAST (PARINGA: GROUND HUNTING)			WEST COAST (COPLAND: GROUND HUNTING)			NORTHLAND (PUKETI: AERIAL 1080)		
REPORTING COSTS	DOC STAFF	OPER-ATING	REPORTING COSTS	DOC STAFF	OPER-ATING	REPORTING COSTS	DOC STAFF	OPER-ATING
Preparation of workplan for control operation			Preparation of workplan for control operation			Preparation of workplan for control operation	360	305
Post-operational report (inc. actual costs)			Post-operational report (inc. actual costs)			Post-operational report (inc. actual costs)	840	
Unspecified			Unspecified			Unspecified		
Total			Total			Total	1200	305
OVERHEADS AND COSTS NOT ALREADY CAPTURED	DOC STAFF	OPER-ATING	OVERHEADS AND COSTS NOT ALREADY CAPTURED	DOC STAFF	OPER-ATING	OVERHEADS AND COSTS NOT ALREADY CAPTURED	DOC STAFF	OPER-ATING
Standard staff salary multiplier	2463		Standard staff salary multiplier	2058		Standard staff salary multiplier	57517	
Conservancy management			Conservancy management			Conservancy management		
Head Office input			Head Office input			Head Office input		
Vehicle, telephone, etc.			Vehicle, telephone, etc.			Vehicle, telephone, etc.		
Administering hunter/ monitoring contracts			Administering hunter/ monitoring contracts			Administering aircraft/ poison monitoring contracts		
Total	2463		Total	2058		Total	57517	

12.3 SUMMARISED COSTING INFORMATION

1992 POSSUM CONTROL COSTING COMPARISONS BETWEEN WEST COAST CONSERVANCY (PARINGA AND COPLAND GROUND CONTROL) AND NORTHLAND CONSERVANCY (PUKETI 1080 AERIAL POISONING)

OVERALL COSTS: WEST COAST (PARINGA - GROUND)				OVERALL COSTS: WEST COAST (COPLAND - GROUND)				OVERALL COSTS: NORTHLAND (PUKETI - AERIAL 1080)			
	COST 91/92		BUDGET 91/92		COST 91/92		BUDGET 91/92		COST 91/92		BUDGET 91/92
	DOC	OPER-STAFF	TOTAL ATING		DOC	OPER-STAFF	TOTAL ATING		DOC	OPER-STAFF	TOTAL ATING
Operational		42630	28320	Operational		48532	36740	Operational (include Regional Council share of costs)	15035	19757	19190
Monitoring	600	15316	13000	Monitoring	480	9429	6900	Monitoring	7125	6607	7300
Planning	180	268		Planning	150	68		Planning	4455	2194	2000
Supervisory	862	1022	13430	Supervisory	742	654	14170	Supervisory	3060	150	
Reporting				Reporting				Reporting	1200	305	
Overheads	2463		15490	Overheads	2058		16360	Overheads	57517		26000
Total	4105	59236	70240	Total	3430	58683	74170	Total	88392	206829	227200
Total (no overheads)	1642	59236	54750	Total (no overheads)	1372	58683	57810	Total (no overheads)	30875	206829	201200

OVERALL COSTS: WEST COAST (PARINGA - GROUND)			OVERALL COSTS: WEST COAST (COPLAND - GROUND)			OVERALL COSTS: NORTHLAND (PUKETI - AERIAL 1080)		
	ACTUAL	BUDGET		ACTUAL	BUDGET		ACTUAL	BUDGET
Overall total	63341	70240	Overall total	62113	74170	Overall total	295221	227200
						Less Regional Council share of costs	35000	
							260221	
Budget under spent	6899		Budget under spent	12057		Budget over spent	33021	
Overall total without overheads	60878	54750	Overall total without overheads	60055	57810	Overall total without overheads	237704	201200
						Less Regional Council share of costs	35000	
							202704	
Budget over spent	6128		Budget over spent	2245		Budget over spent	1504	

12.4 POSSUM CONTROL COST EFFECTIVENESS ESTIMATES 1991/92

ALL COSTS EXCLUDE GST AND INCLUDE OVERHEAD ESTIMATES

WEST COAST (PARINGA: GROUND HUNTING)			WEST COAST (COPLAND: GROUND HUNTING)			NORTHLAND (PUKETI: AERIAL 1080)		
COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET	COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET	COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET
Total cost of operation	63341	70240	Total cost of operation	62113	74170	Total cost of operation	295221	227200
Under spent budget	6899	n/a	Under spent budget	12057	n/a	Over spent budget	33021	n/a
Total area treated (ha)	3635	4600	Total area treated (ha)	2782	3500	Total area treated (ha)	13400	13400
Cost per hectare	\$17.43	\$15.27	Cost per hectare	\$22.33	\$21.19	Cost per hectare	\$22.03	\$16.96
Number of possums killed	1856	1200	Number of possums killed	2519	3300	Number of possums killed	n/a	n/a
Percentage under/over naachievement of target	55%	n/a	Percentage over achievement of target	24%	n/a	Percentage under/over achievement of target	n/a	n/a
Cost per possum killed	\$34.13	\$58.53	Cost per possum killed	\$24.66	\$22.48	Cost per possum killed	n/a	n/a

WEST COAST (PARINGA: GROUND HUNTING)			WEST COAST (COPLAND: GROUND HUNTING)			NORTHLAND (PUKETI: AERIAL 1080)		
COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET	COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET	COST EFFECTIVENESS ESTIMATES	ACTUAL	BUDGET
Estimated initial possum density no./ha	n/a	0.4	Estimated initial possum density no./ha	n/a	1.6	Estimated initial possum density no./ha	n/a	n/a
Post-operation possum density no./ha	n/a	?	Post-operation possum density no./ha	n/a	0.89	Post-operation possum density no./ha	n/a	n/a
Possum % kill	63%	51%	Possum % kill	60%	59%	Possum % kill	53%	80%
Percentage over-achievement of target	12%	n/a	Percentage under/over achievement of target	1%	n/a	Percentage under-achievement of target	-27%	n/a

12.5 LIST OF PERTINENT RECOMMENDATIONS FROM WARBURTON ET AL. 1992

- 1 Goals must be defined more clearly and must be quantifiable
- 2 Operational plans must be produced for each control area
- 3 Both performance and operational monitoring methods should be refereed by relevant research personnel to ensure adequate sampling is undertaken and that the methods are suitable to measure the required performance criteria
- 4 The treatment area, if different from the management area, should be defined and reported separately from the total management area
- 5 Expenditure on control operations should be recorded to allow adequate auditing. All costs, including staff salaries, must be recorded for each operation. Clear guidelines from DoC Head Office should be given to each Conservancy on what costs should be apportioned to a control operation and what costs should be included as overheads.
- 6 Minimum standards should be put in place to ensure all Conservancies are adequately monitoring the impact of their control methods.