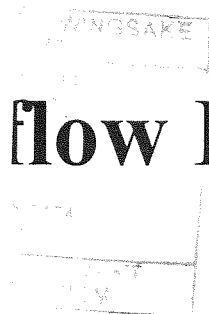


REF NO: 16242

FROM: DIRECTOR-GENERAL: MS PAM YAKO

TO: DDG: MCM

COMMENTS: Approved



# Flow Details

MINISTERIE VAN OMGEWINGSAKE EN TOERISME  
 PRIVAATSAK X 447  
 PRETORIA 0001  
 2007 -09- 28  
 PRIVATE BAG X 447  
 PRETORIA 0001  
 MINISTRY OF ENVIRONMENT AFFAIRS AND TOURISM

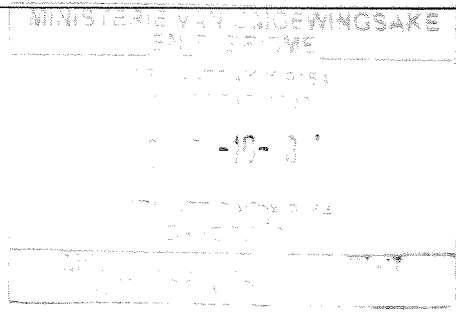
## 16242 TAC/TAE SCRL 2007/08 SUBMISSION

Date	Initiator:	Current Performer:	Due Date:	Done Date	Workflow Status:
10 September 2007 03:03 PM	Masibonge Silevu	WF: ODG Scan Registry	04 October 2007 10:50 AM		Executing

**Initiator Comments:**

Step Details...

Step Name	Performer	Task Disposition	Due Date	Done Date	Comments
Step 2 - Director	Ntobeko Bacela	Forward to CD	12 September 2007 03:03 PM	13 September 2007 05:36 PM	Dear Andre, I have modified the original submission as originated by Masibonge. the modification is in the form of the added MSWord Document differentiated by (b).
Step 3 - Chief Director	Andre Share	Recommended	17 September 2007 05:36 PM	19 September 2007 11:51 AM	Dear DDG I have scrutinised and revised the Submission accordingly and added a new version. Regards Andre
Step 5 - Deputy Director-General	Monde Mayekiso	Recommended	21 September 2007 11:51 AM	20 September 2007 02:23 PM	
Step 6 - Chief Financial Officer	Saliem Mohamed	Funds available	24 September 2007 02:23 PM	20 September 2007 06:50 PM	
Step 7 - Chief Operating Officer	Nosipho Jezile	Recommended	24 September 2007 06:50 PM	21 September 2007 03:52 PM	
Step 8 - Language Practitioner	Nondwe Nkayi		25 September 2007 03:52 PM	25 September 2007 09:07 AM	Edited. LP 25 09 07
Step 9 - Director-General	Pam Yako	Recommended	27 September 2007 09:07 AM	28 September 2007 09:23 AM	
Step 10D - Print Documents for DG	Betta Coetzee		02 October 2007 09:23 AM	28 September 2007 10:50 AM	
Step 10E - Scan & Attach Signed Submission	WF: ODG Scan Registry		02 October 2007 10:50 AM		
Step 11 - Workflow Complete	WF: D:IFM		04 October 2007 10:50 AM		



*Revised 4pt  
2-19/07*

# Workflow Details



☐ 16242 TAC/TAE SCRL 2007/08 SUBMISSION					
Date	Initiator:	Current Performer:	Due Date:	Done Date	Workflow Status:
10 September 2007 03:03 PM	Masibonge Silevu	WF: ODG Scan Registry	04 October 2007 10:50 AM		Executing
<b>Initiator Comments:</b>					
☐ <i>Step Details...</i>					
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Step 11 - Workflow Complete	WF: D:IFM		04 October 2007 10:50 AM		

16242



## environment & tourism

Department:  
Environmental Affairs and Tourism  
REPUBLIC OF SOUTH AFRICA

Reference: V1/3/5/2/1

### MINISTER

#### TOTAL ALLOWABLE CATCH (TAC) AND TOTAL ALLOWABLE EFFORT (TAE) FOR THE 2007/2008 SOUTH COAST ROCK LOBSTER SEASON

#### 1. PURPOSE

- 1.1 To request you to determine the TAC and the TAE for the 2007/2008 South Coast Rock Lobster ("rock lobster") season in terms of the provisions of Section 14 of the Marine Living Resources Act, 1998 (Act No. 18 of 1998).

#### 2. SUMMARY

- 2.1 There is a need to adopt improved modeling techniques to facilitate recommendation of the TAC in the South Coast Rock Lobster Sector. There is also no conclusive basis to change the TAC levels from what they have been in the last four seasons. While improved techniques are being developed, it is safe to recommend a TAC of 382 tons tail mass for the 2007/8 fishing season and 2089 fishing days of effort. The South Coast Rock Lobster season extends from 1 October to 30 September of the following year.

#### 3. BACKGROUND AND DISCUSSION

- 3.1 For three consecutive fishing seasons since 2004/5, including the 2006/7 season, you determined a TAC and TAE for the South Coast Rock Lobster at 382 tons tail mass and 2089 sea-days (Annexure A). This was based on similarly stable outputs of an age-structured production model, which had been consistently applied for four years to assess the stock status and productivity.

- 3.2 A challenge emerged where two observations could not be reconciled nor explained (Annexure B). One observation suggested that the resource was growing when judged from measurement of catches per unit of effort. A second observation from length distribution of catches, which did not match the earlier, as expected.
- 3.3 There was an expectation that an Operational Management Procedure (OMP) would be implemented in the future to transcend the difficulties experienced. The OMP however is still under development.
- 3.4 When adapted forms of the age-structured production model were applied, an equivalent TAC output was produced leading to a recommendation that the level of 382 tons be retained until there is overwhelming basis to increase or decrease the TAC.
- 3.5 The fishing behaviour of the right holders has not significantly changed although it is worth noting that a specific group lately prefers to land and trade in live lobster owing to a higher return from markets. The significance of this fishing approach may demand an increased number of fishing days, which will require attention in the future.
- 3.6 It is not possible at this stage to reflect adequately on the impact of the late decision in the 2006/7 season on appeals in the sector to the industry landing the TAC. As such it is only recommended that you determine the TAC for the 2007/8 South Coast Rock Lobster season at 382 tons with a fishing effort of 2089 sea days.

#### **4. OTHER CHIEF DIRECTORATES / BRANCHES CONSULTED**

- 4.1 The Chief Directorate: Research, Antarctica and Islands was consulted.

#### **5. RECOMMENDATIONS**

It is recommended that:

- 5.1 a global TAC of 382 tons tail mass be determined for the 2007/8 South Coast Rock Lobster season and that it be apportioned as follows:
- Commercial Fishing: 382 tonnes tail mass (previously 382 tonnes),
  - Recreational Fishing: Nil allocation (previously nil),

- Subsistence Fishing: Nil allocation (previously nil),
- Foreign Fishing: Nil allocation (previously nil).

- 5.2 the TAE remains at 2089 sea-days for the 2007/8 season,
- 5.3 a pool equaling 10% of the sea-day allocation (209 days) be set aside to provide for possible major changes in fishing strategy in the 2007/8 fishing season,
- 5.4 an Operational Management Procedure (OMP) be explored when recommending the TAC for the 2008/9 season, and
- 5.5 the 2007/8 fishing season opens 1 October 2007.

DIRECTOR-GENERAL

DATE:

RECOMMENDATIONS

- 5.1 APPROVED/~~NOT APPROVED~~
- 5.2 APPROVED/~~NOT APPROVED~~
- 5.3 APPROVED/~~NOT APPROVED~~
- 5.4 APPROVED/~~NOT APPROVED~~
- 5.5 APPROVED/~~NOT APPROVED~~

MINISTER

DATE:

*MS*  
*1/10/07*



## environment & tourism

Department:  
Environmental Affairs and Tourism  
REPUBLIC OF SOUTH AFRICA

Reference: V1/3/5/2/1

### MINISTER

#### TOTAL ALLOWABLE CATCH (TAC) AND TOTAL ALLOWABLE EFFORT (TAE) FOR THE 2006/2007 SOUTH COAST ROCK LOBSTER SEASON

##### 1. PURPOSE

- 1.1 To request that you determine the TAC and the TAE for the 2006/2007 South Coast Rock Lobster ("rock lobster") season in terms of the provisions of Section 14 of the Marine Living Resources Act, 1998 (Act No. 18 of 1998).

##### 2. BACKGROUND AND DISCUSSION

- 2.1 It is advisable that the TAC and the TAE for the South Coast rock lobster for the 2006/2007 fishing season remain unchanged at 382 tonnes tail mass and 2 089 sea-days, the levels of the 2005/2006 season. The 2006/2007 fishing season for South Coast rock lobster opens on 1 October 2006.
- 2.2 For the 2005/2006 season you determined a global TAC of 382 tonnes tail mass and a TAE of 2 089 sea-days for the South Coast rock lobster fishery (Annexure A).
- 2.3 The department considered the recommendations from the Chief Directorate: Research, Antarctica and Islands of the Branch: Marine and Coastal Management (as per attached Annexure B) and wishes to advise as follows:

- During this year the same age-structured production model, as applied during the past four years to South Coast rock lobster, has been used to update the assessment of the resource and to provide a range of projections into the future for a number of harvesting options.
- The current assessment shows that the catch per unit effort (CPUE) has continued its upward trend for the last few years, but there are conflicting signals from the length distribution of the catches, which is not showing the features that would be expected for a growing resource.
- The assessment model gives results for stock status trend and productivity that are very similar to the previous year.
- In the light of this, there is no compelling evidence to either increase or decrease the TAC or TAE for the 2006/2007 season.
- As the appeals for south coast rock lobster were finalised late in the fishing season (August 2006), it is possible that a small portion of the TAC will not be caught before the season ends. It is not expected that the transfer of such a limited amount of uncaught tonnage to the 2006/2007 season will have a significantly negative impact on the resource.

## 5. RECOMMENDATIONS

It is recommended that:

- 5.1 the current global TAC of 382 tonnes tail mass remains at this level for the 2006/2007 South Coast rock lobster season and that it be apportioned as follows:
  - Commercial Fishing: 382 tonnes tail mass (previously 382 tonnes)

- Recreational Fishing: Nil allocation (previously nil)
- Subsistence Fishing: Nil allocation (previously nil)
- Foreign Fishing: Nil allocation (previously nil),

- 5.2 the TAE remains at 2 089 sea-days for the 2006/2007 season,
- 5.3 a pool equalling 10% of the sea-day allocation (209 days) be set aside to provide for possible major changes in fishing strategy in the 2006/07 fishing season,
- 5.4 every effort be made to complete the Operational Management Procedure (OMP) as the basis for the TAC recommendation for the 2007/2008 season,
- 5.5 the 2006/2007 fishing season opens on 1 October 2006, and
- 5.6 the portion of the TAC that could not be landed in 2005/2006 be transferred to the 2006/2007 season.

*Recommended by DG and EMS 4/10/2006*

DIRECTOR-GENERAL  
DATE:

RECOMMENDATIONS  
5.1 APPROVED/~~NOT APPROVED~~  
5.2 APPROVED/~~NOT APPROVED~~  
5.3 APPROVED/~~NOT APPROVED~~  
5.4 APPROVED/~~NOT APPROVED~~  
5.5 APPROVED/~~NOT APPROVED~~  
5.6 APPROVED/~~NOT APPROVED~~

MINISTER  
DATE:

*WSP*  
*10/10/06*

ANNEXURE B

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM  
MARINE AND COASTAL MANAGEMENT

RECOMMENDATIONS FOR THE SUSTAINABLE MANAGEMENT OF THE  
SOUTH COAST ROCK LOBSTER RESOURCE IN 2007/2008

August 2007

**Summary**

It is recommended that the Total Allowable Catch (TAC) and Total Allowable Effort (TAE) for South Coast rock lobster for the 2007/08 fishing season remain unchanged at 382 tons tail mass and 2089 sea-days, the same levels for the 2006/2007 season.

**Introduction**

South Coast rock lobster (*Palinurus gilchristi*) supports the second largest lobster fishery in South Africa, and has a management history dating back to 1974, when the resource was initially discovered. The fishery operates in deep water (50 – 200 m) off the south coast, between Cape Point and East London, and fishing gear is restricted to long-lines with traps. The fishery is capital intensive, requiring specialized equipment and large ocean-going vessels. For this reason, it is restricted to the commercial sector. The fishing season for South Coast rock lobster is year-round, extending from the 1<sup>st</sup> of October to the 30<sup>th</sup> of September of the following year. The management approach applied by MCM is a combination of TAC and TAE – the former limits total catch, and the latter fishing effort in terms of days spent fishing and number of fishing vessels.

### Resource Assessment

After six years of steady increase, the major index monitoring resource size, CPUE, showed a slight decrease in 2005/6 from the recent high-point of the 2004/5 season, returning to a level similar to that in 2003/4 (see Table 1)

The age-structured production model applied previously to South Coast rock lobster has been used to update the assessment of the resource and to provide a range of projections into the future for a number of harvesting policies. As before, however, there are conflicting signals from the length distribution of the catches and the CPUE. These conflicts can be at least partly resolved either by assuming that there was effort saturation in the late 1990s, or that selectivity amongst length groups has varied over time. Advice from an international stock assessment workshop held in July 2007 was, as an interim measure, to base a TAC recommendation on the results of various forms of this model, giving greater weight to those that were better able to reproduce the trends evident in the data. On this basis greatest importance was accorded to results from the effort saturation and time-varying selectivity models.

To maintain spawning biomass at the current level over the next 10 years, the effort saturation model suggested a TAC of 360 tons. Different versions of the time-varying selectivity model provided a range from 330 to 405 tons for the TAC required to achieve such stability; however, the versions providing higher values were considered to provide more satisfactory representations of the situation, and a value of 400 tons was selected to typify results from this approach. Giving equal weight to the two approaches with their associated TAC estimates of 360 and 400 tons indicates a TAC of 380 tons. Since this differs only marginally from the existing 382 ton TAC, it is recommended that this TAC remain unchanged.

Although the work required to move to an Operational Management Procedure (OMP) basis to recommend TACs for this resource was not completed in time to be used for 2007/8, considerable progress towards that end has been made in the interim. Not only were analysis methods on time-varying selectivity approaches to assessment advanced,


but work on spatially re-stratifying the CPUE and somatic growth estimates, and conducting assessments on this spatially disaggregated basis (as recommended by a previous international review) was substantially progressed. This work will contribute towards the intended finalisation of an OMP to provide TAC recommendations commencing with the 2008/9 season. This OMP will allow the TAC to be moved up or down smoothly from the current level in appropriate response to trends in future resource-monitoring data.

A review of the methods used to calculate the number of seas days (TAE) will also be undertaken during the 2007/2008 season.

### **Recommendations**

It is recommended that:

- 1) The TAC remain at 382 tons for the 2007/2008 season.
- 2) The TAE remain at 2089 sea-days for the 2007/2008 season.
- 3) The fishing season opens on the 1<sup>st</sup> of October 2007
- 4) A pool equaling 15% of the sea-day allocation be set aside to provide for possible major changes in fishing strategy (313 days in the 2007/08 fishing season);
- 5) Every effort should be made to complete the OMP as the basis for the TAC recommendation for the 2008/9 season.



Dr C.J. Augustyn

Chief Director: Research, Antarctica & Islands

Date: 17/8/2007

TABLE 1: South Coast rock lobster TAC, TAE and standardized CPUE

Season	TAC (Tons tail mass)	TAE Allocated sea-days	Standardized CPUE (kg tail mass / trap)
77/78			0.219
78/79			0.206
79/80			0.161
80/81			0.202
81/82			0.193
82/83			0.166
83/84			0.196
84/85	450		0.163
85/86	450		0.159
86/87	450		0.207
87/88	452		0.186
88/89	452		0.221
89/90	452		0.205
90/91	477		0.174
91/92	477		0.143
92/93	477		0.139
93/94	477		0.127
94/95	452		0.116
95/96	427		0.108
96/97	415		0.090
97/98	402		0.082
98/99	402		0.079
99/2000	377		0.080
2000/2001	365	2339	0.090
2001/2002	340	1922	0.099
2002/2003	340	2146	0.111
2003/2004	350	2038	0.115
2004/2005	382	2089	0.130
2005/2006	382	2089	0.114