## INDICATIVE TOTAL ALLOWABLE COMMERCIAL CATCHES FOR THE WEST COAST ROCK LOBSTER MANAGED FISHERY (2013-2015) BASED ON PROPOSED HARVEST STRATEGY DECISION RULES FRAMEWORK

- This supplementary information is to be read in conjunction with the relevant sections of the Harvest Strategy Decision Rules paper (Fisheries Management Paper No. 254; specifically pages 16-20).
- The legal proportion harvested is the percentage of legal animals harvested from the total legal biomass:

Legal proportion harvested = Total catch / Total legal biomass

- It is proposed to set the legal proportion harvested at $0.5(+/-0.05)$.
- The lower the legal proportion harvested, the higher the catch rate and subsequent economic returns because the cost of capture is reduced.
- The key principles of the harvest strategy and decision rules are:

1) Maintaining acceptable egg production levels in each Breeding Stock Management Area and where appropriate setting an optimal legal proportion harvested.
2) Quotas will be set on a zone by zone basis.
3) The Total Allowable Commercial Catch (TACC) will be based on:
a. current breeding stock levels in each breeding stock management area;
b. future breeding stock levels based on anticipated future recruitment (puerulus numbers); and
c. the optimal legal proportion harvested (e.g. 0.5).
4) The TACC should not change by more than $20 \%$ per year unless biological sustainability reference values are breached.
5) The TACC, and indicative TACCs for four out years will be provided prior to the start of each season.
6) Indicative TACCs will be reviewed annually to take into account any unexpected changes to the stock status.

- The figures contained in Table 1 are indicative and are based on the current model and data. The out years will be affected by what TACC is set in 2013/14 and by changes in future data and model updates (e.g. levels of puerulus settlement and breeding stock).
- Using the legal proportion harvested, the TACC for each of the regions (northern or southern) is directly based on the amount of harvestable stock available in those regions.
- The fishery has historically caught approximately 11,000 tonnes at a legal proportion harvested in the range of $70 \%-90 \%$ (depending on zone).
- It is important to remember the impacts this had on the economics and efficiency of the industry (e.g. the historical $1 \mathrm{~kg} / \mathrm{pot}$ lift has more than doubled).
- A legal proportion harvested value close to 0.5 would maintain catch rates in each zone at levels similar to those experienced over the past three seasons.

Table 1. Indicative TACCs within the legal proportion harvested range of $0.5( \pm 0.05)$ as set out in the proposed harvest strategy and decision rules framework. The northern TACC is split on the ten year average (1998-2007) between $A$ and $B$ zones ( $A: B, 0.359: 0.641$ ).

|  | Zones A \& B Combined |  | Zone C |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Season | Lower <br> $(\mathrm{lph}=0.45)$ | Mid <br> $(\mathrm{lph}=0.5)$ | Upper <br> $(\mathrm{lph}=0.55)$ | Lower <br> $(\mathrm{lph}=0.45)$ | Mid <br> $(\mathrm{lph}=0.5)$ | Upper <br> $(\mathrm{lph}=0.55)$ |
| $2013 / 14$ | $2806^{1}$ | $319^{2}$ | $3429^{3}$ | 2230 | 2466 | 2690 |
| $2014 / 15$ | 3006 | 3241 | 3457 | 2341 | 2525 | 2689 |
| $2015 / 16$ | 3168 | 3336 | 3479 | 2498 | 2638 | 2752 |

1. Zone A -1008; Zone B 1798; 2 Zone A= 1121; Zone B= 1998; 3. Zone A 1232; Zone B 2197.
