

31 March 2015

**SUSTAINABILITY ROUND 2015
DEEMED VALUES -KIN7 and KIN8**

Background

The deemed values for kingfish were reviewed in 2013. In that review, the annual deemed value rate for KIN3 was raised \$8.90 per kg and the differential deemed value rates for KIN7 were increased to match the KIN8 differential deemed rates. The current rates apply:

Current Kingfish Deemed Values Regime							
Stock	Interim	0 - 20%	>20%	>40%	>60%	>80%	>100%
KIN1	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
KIN2	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
KIN3	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
KIN4	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
	Interim	0 - 20%	>20%	>40%	>50%	>60%	>70%
KIN7	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
KIN8	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80

Deemed value payments for KIN7 and KIN8 in the last five years in the stocks were as follows:

Stock	2009/10	2010/11	2011/12	2012/13	2013/14	Total
KIN7	-	-854	-126,763	- 92,932	171,441	\$391,989
KIN8	76,304	22,250	452,405	369,594	860,325	\$1,780,878

In the period since 2003 when kingfish were introduced into the QMS, deemed value payments for KIN7 have totalled over \$700,000 and for KIN8 over \$2,500,000. A significant deemed value payment will be incurred again for the 2014/15 fishing year.

The TACC for KIN7 was increased in 2013 from 7 tonnes to 15 tonnes and for KIN8 in 2011 from 36 tonnes to 45 tonnes. Those TACCs are still below the reported catches in many years prior to the introduction of kingfish into the QMS in 2003.

The table below gives the method type for commercial landings of kingfish for the period 2008/14. Whereas KIN7 and KIN8 are dominated by trawl catch, KIN1 has a lower trawl caught share. The trawl catch in KIN7 and KIN8 is dominated by the jack mackerel trawl fishery.

Method category	KIN1	KIN7	KIN8
Trawl	25.66%	96.15%	90.43%
Bottom line	41.57%	2.18%	6.81%
Set net	21.23%	1.32%	2.19%
Purse seine	5.53%	0.25%	0.46%
Danish seine	3.67%	0.05%	0.09%
Beach seine	1.40%	0.00%	0.00%

Analysis of the deemed value payments indicates that the jack mackerel trawl fleet incurs almost all the deemed value penalties. Quota for KIN7 and KIN8 is largely held by the set-net, longline and inshore trawl sector. The jack mackerel fleet generally did not receive quota which was based on the catch history of 1990/91. At that time, most of the current jack mackerel fishers were not active in catching jackmackerel and thus accumulated no catch history.

For further background on the KIN7 and KIN8 fisheries, we refer you to our submission on low knowledge stocks.

The 2013 Review

The MPI advice to raise KIN7 differential rates highlighted:

- Schedule 6 provisions (return to the sea) apply to kingfish stocks;
- The significance of kingfish to the recreational sector;
- The TACC for KIN7 was significantly over-caught;
- Applying the same differential rate structure as KIN8 would encourage fishers to balance with ACE and avoid creating incentives to discard and misreport;

More recent information provides the opportunity to revisit the assumptions made previously when current DV rates were set and to review these rates accordingly.

Schedule 6 Provision

Kingfish, other than those caught by setnet, can be returned to the sea under Schedule 6 provisions.

While the jack mackerel fleet has adopted an operational practice to return live kingfish to the sea as a priority task when a net has been hauled, approximately 25% of kingfish caught in the jack mackerel trawl is not landed alive and cannot be returned under Schedule 6. That applies to both KIN7 and KIN8 fishing. Kingfish Schedule 6 provisions are already being used to the extent possible to reduce the amount of KIN7 and KIN8 landed by the jack mackerel fleet.

Significance of Recreational Kingfish

The recently-released report on recreational catch contains estimates of kingfish take by recreational fishers as follows:¹

Kingfish Recreational Catch						
	FMA1	FMA2	FMA3	FMA7	FMA8	Total
Number of KIN as a %age of total rec finfish catch	0.97%	0.67%	0.05%	0.33%	0.43%	0.74%
Rec KIN catch (Tonnes)	535.1	40.6	2.9	20.7	62.6	661.9
Recreational Allowance	459	65	1	10	31	566

The survey shows kingfish are a highly prized species only in FMA1 and even in that fishery kingfish makes up less than 1% of the total finfish catch retained by recreational fishers. While FMA1 is known and promoted as a sportfishing venue for kingfish, in FMA7 and FMA8, the fish tend to be smaller than their FMA1 counterparts and are less targeted.

¹ J Wynne Jones, A Gray, L. Hill, A Heineman National Panel Survey of Marine Recreational Fishers 2011-12, Ministry for Primary Industries, November 2014, ISBN 978-0-477-10504-0

Regional Variation in Commercial Prices

The indicative 2015/16 port prices for the kingfish stocks are as follows:

	2012-13 Port Price kg	2013-14 Port Price kg	2014-15 Port Price kg	Recommended 2015/16 port price	Survey Response as %age of Catch
KIN1	5.76	5.82	5.82	6.35	90%
KIN2	3.84	3.74	3.74	4.20	58%
KIN3	5.14	2.26	2.26	5.06	20%
KIN4	5.14	5.10	5.10	5.10	0%
KIN7	2.15	2.11	2.11	2.78	89%
KIN8	5.14	5.32	5.32	4.15	97%

As shown by the above table, there are significant differences between the prices paid for kingfish in different FMAs. The survey response levels indicate these are robust price estimates. The prices range from \$6.35 in KIN1 to as little as \$2.78 in KIN7. This reflects the difference in quality of the product as a consequence of the fishing method and in particular whether landed fresh or frozen. The table below gives the method type for commercial landings of kingfish for the period 2008/14.

Method category	KIN1	KIN7	KIN8
Trawl	25.66%	96.15%	90.43%
Bottom line	41.57%	2.18%	6.81%
Set net	21.23%	1.32%	2.19%
Purse seine	5.53%	0.25%	0.46%
Danish seine	3.67%	0.05%	0.09%
Beach seine	1.40%	0.00%	0.00%
Troll	0.63%	0.05%	0.01%
Others	0.31%	0.00%	0.00%
Total	100.00%	100.00%	100.00%

Line or purse seine caught fish are of high quality and can be sold as either fresh or chilled kingfish fillets or steaks or whole fish. Setnet and inshore trawl fish are of lower quality and are sold as chilled products but at a lower price. The jack mackerel fleet catch is the poorest quality kingfish due to the degree of bruising and the inability to bleed the fish at the time of death and the freezing of the catch. That is a consequence of the larger size of jack mackerel trawl bags, longer tow times and longer time at sea. Unlike the inshore long-line, set-net and trawl vessels, have an average trip duration of less than 5 days, the jack mackerel fleet is at sea for a longer time each trip and freeze their kingfish catch. The frozen kingfish from the jack mackerel fleet is more frequently sold as frozen to export markets rather than sold to the domestic market. The port price differentials reported above are a reflection of the quality and market price of the different grades of kingfish. Setting the deemed value to be the same rate as the FMA1 rate is entirely inappropriate.

Deemed Value Rate Setting

The normal setting for an annual deemed value for other than paua, rock lobster, scallops, oysters and eels is between 80% and 90% of the port price. Based on the surveyed port prices, the KIN1 deemed value rate would be 140% of the port price, KIN7 320% and KIN8 214%. Such rates would normally incentivise the misreporting of catch. In this instance, where the overcatch of the TACC is

due mainly to incidental bycatch in the JMA trawl fishery, and the vessels are highly observed by MPI observers, there is little risk of misreporting.

The issue is what setting is appropriate for KIN7 and KIN8? The ratio of 140% of port price as is set for KIN1 is clearly not appropriate. By normal practices, that rate is excessive but probably reflects the shared nature of the fishery.

Following the deemed value practice, the annual deemed values for KIN7 and KIN8 would be \$2.25 and \$3.32 respectively. Given that the stocks are effectively fished as one stock by the jack mackerel fleet (and are reported as a single biological and highly mobile stock on the West Coast of NZ – MPI Plenary 2014²), a common deemed value regime would be appropriate. A weighted average annual deemed value for the two stocks of \$3.12 would be appropriate.

Applying the benchmark of an interim deemed value being 90% of the annual rate would give interim rates for KIN7 and KIN8 of \$2.81.

Until the TACCs are reviewed, the accelerated ramping pattern for KIN7 and KIN8 should be reduced to the normal pattern of ramping for a fishstock, that is, a 20% increase in the deemed value for every 20% of catch in excess of the amount of ACE held. That will assist in ensuring that catches are accurately reported in all gear sectors and assist in any re-consideration of the KIN7 and KIN8 TACCs.

The deemed value regime for KIN7 and KIN8 is therefore proposed to be as follows:

	<i>Interim</i>	<i>0 - 20%</i>	<i>>20%</i>	<i>>40%</i>	<i>>50%</i>	<i>>60%</i>	<i>>70%</i>
Current							
KIN7	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
KIN8	\$ 8.00	\$ 8.90	\$ 10.68	\$ 12.46	\$ 14.24	\$ 16.02	\$ 17.80
Proposed							
	<i>Interim</i>	<i>0 - 20%</i>	<i>>20%</i>	<i>>40%</i>	<i>>60%</i>	<i>>80%</i>	<i>>100%</i>
KIN7 KIN8	\$2.81	\$3.12	\$3.74	\$4.37	\$5.00	\$5.62	\$6.24

² Fisheries Assessment Plenary, Ministry for Primary Industries, November 2014, ISBN978-0-478-43252-7