

Alaska Seafood Cooperative's  
draft final report on EFP 15-02 (deck sorting)  
and 2016 EFP Application



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# Outline

- Brief summary of final results from 2015 EFP (update from Oct)
- A little background on process to select what elements should be incorporated into 2016 EFP application
- Description of elements of 2016 EFP (explained in terms of modification to 2015 EFP)
- Brief discussion of “big picture” plan to get Deck Sorting implemented into fishery as an alternative catch handling procedure for all non-pollock CP trawl fisheries (Amend. 80, TLAS, CDQ)

Short video to illustrate what “deck”  
sorting looked like in 2015 and how  
on-deck halibut sampling occurred

# 2015 EFP Final Report Table 1

Vessel	EFP Groundfish MT	Halibut catch MT	EFP mortality MT	EFP mortality rate	IPHC mortality MT*	Net Savings MT	Dates in EFP
Constellation	9,818	117.0	58.5	50%	93.6	35.1	May 24-July 4; July 17-Oct 24
Legacy	794	21.6	9.0	41%	17.3	8.3	May 16 -June 4
Arica	11,130	140.4	68.2	49%	112.3	44.1	June 9- Nov 17
Cape Horn	5,589	74.2	34.4	46%	59.4	25.0	June 3- July 26; Sept 14-Nov 6
Rebecca Irene	944	15.0	6.5	43%	12.0	5.5	July 20-Sept 2
Defender	5,153	65.4	34.2	52%	52.3	18.1	June 22-Oct 16
Unimak	3,656	21.3	10.7	50%	17.0	6.4	Aug 29-Oct 11
Ocean Peace	1,318	26.6	12.2	46%	21.3	9.0	Aug 12-Sept 2
Enterprise	159	0.2	0.1	70%	0.2	0.0	Sept 17-Sept 19
Totals	38,561	481.7	233.8	49%	385.4	151.6	

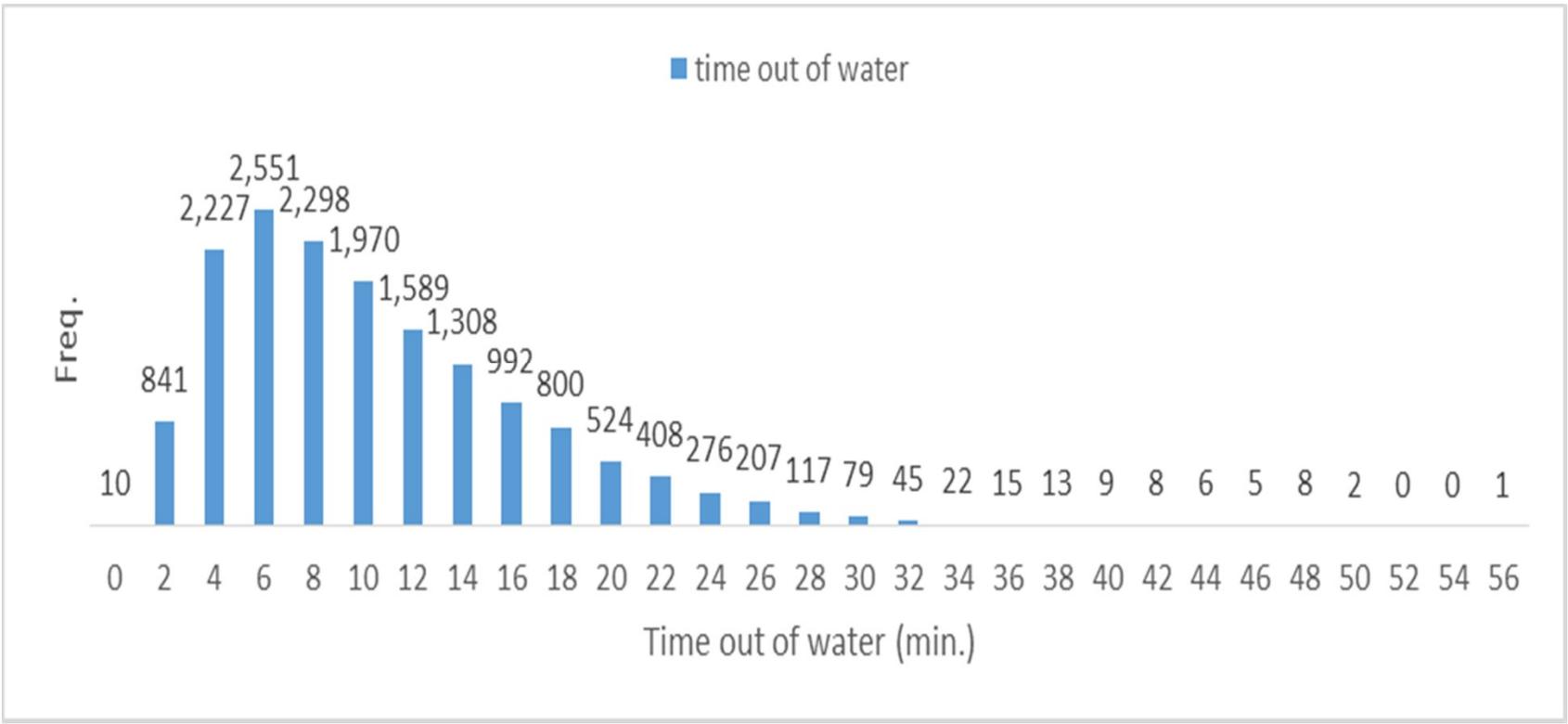
# What worked in 2015 EFP

- Achievement of halibut mortality savings
- Incentives at the vessel level
- Catch handling procedures (flexibility)
- Sampling procedures (amount on deck, viability, amount in factory)
- Observer providers' efforts to provide sea samplers and accommodate participants' scheduling
- Use of field project managers to ensure understanding of procedures and follow through

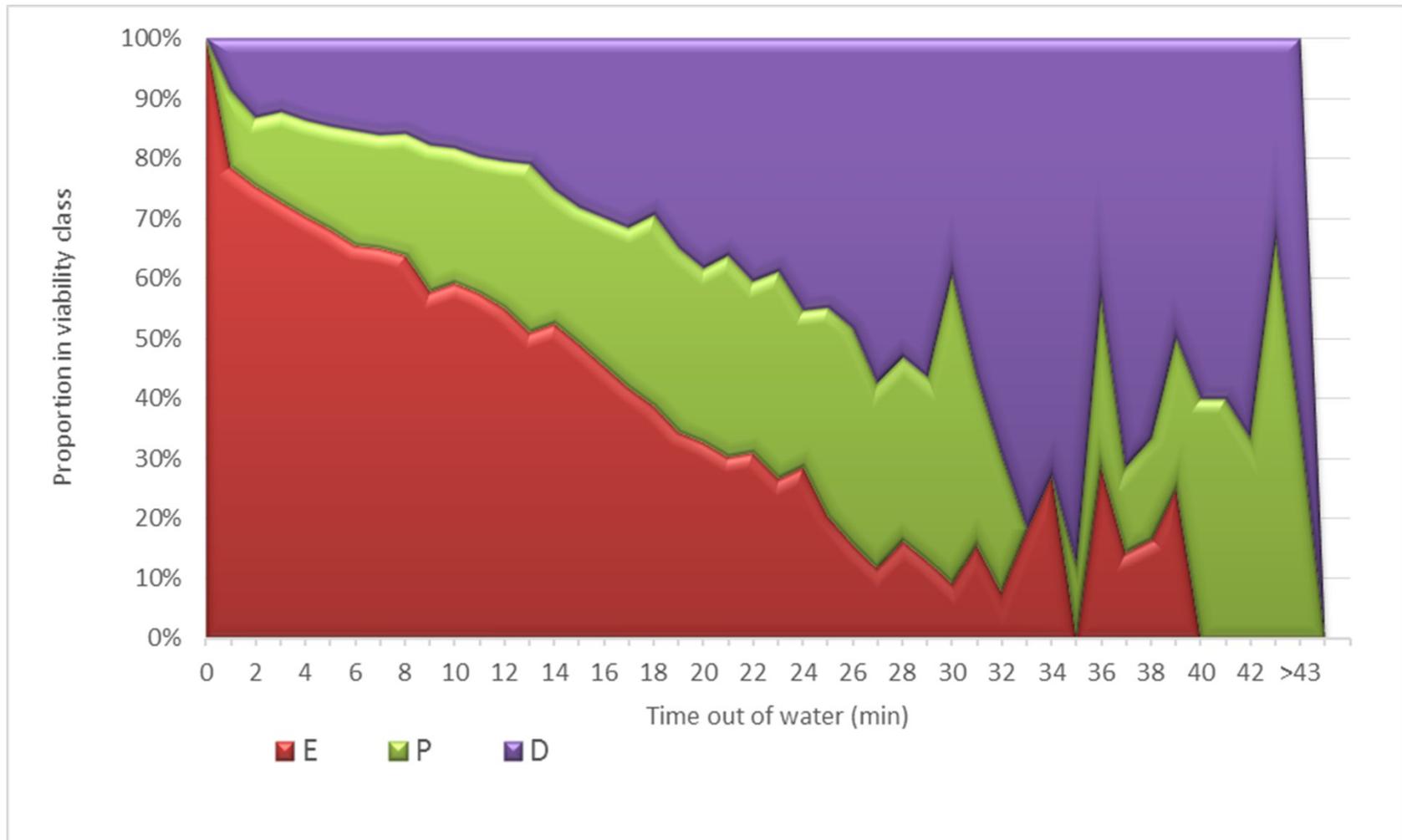
# Challenges noted in 2015

- Level of communication associated with flexibility to toggle between A. 80 and EFP
- 72 hour notice for observer briefings
- Long hours for sea samplers overseeing crew census in factory
- Data not entered into catch accounting system, AKSC manages EFP, error checking of data, reporting data to NMFS
- Aspects that “worked” in EFP but probably need to be modified if deck sorting is to be implemented

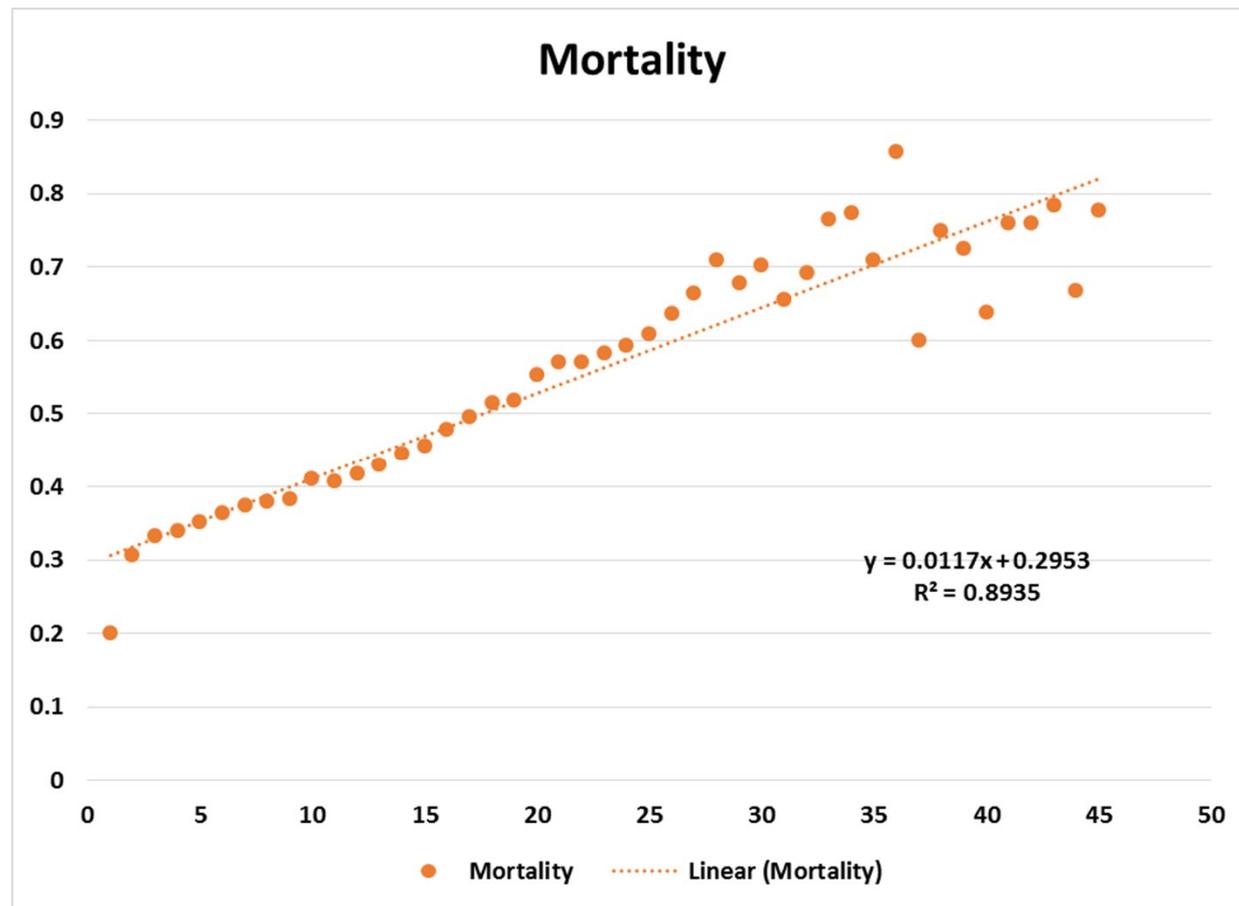
# 2015 EFP Final Report Figure 1: Time out of Water



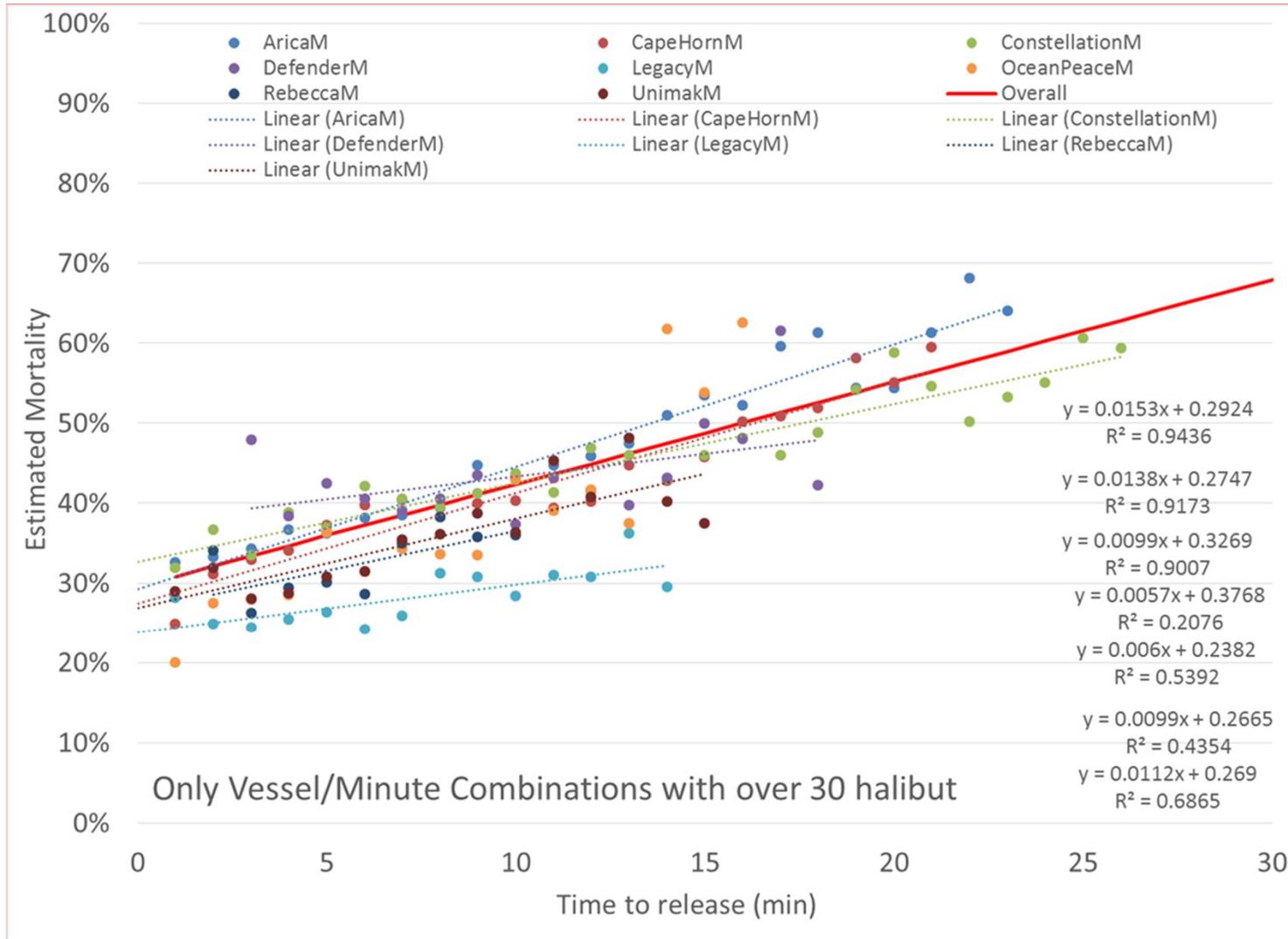
# 2015 Report (Figure 2): Halibut viability proportions by time out of water



# Viability as a function of time out of water across all boats (averaged)



# Viability as a function of time out of water by vessel



# Conclusions of 2015 Final Report regarding how incentives affected results

- 2015 savings in halibut mortality were significant
- Time out of water key factor in reducing mortality via deck sorting
- Crew sorting and sampling procedures affect time out of water
- Fishing practices also important along with procedures on deck (example)
- Vessel incentives important to results of EFP
- Deck sorting works, increases costs/work; Sampling needs to be practical and a balance between precision, cost, time out of water

# Elements of 2015 EFP

- Two observers doing normal catch sampling, halibut not part of their duties
- Two sea samplers collecting data on halibut (only) on deck and in factory
- Notices prior to EFP participation: one week prior to starting EFP and 72 hour briefing notice required

# Elements of 2015 EFP (continued)

- Deck Sorting EFP procedures optional (toggling allowed) as long as notification rules followed
- Different catch handling and sampling procedures for EFP and non-EFP tows on EFP trips
- 2012 EFP sampling methods repeated (20% stratified random sample) used to estimate amount of halibut on deck, its viability
- Census in factory using 2012 EFP methods (crew census with sea sampler oversight; samplers measured all factory fish)

# Elements of 2015 EFP (continued)

- 90% mortality rate assumed for “factory” halibut on EFP tows (based on 2012 EFP)
- AKSC received data daily from sea samplers; monitored EFP; coordinated with observer providers; halibut catch and mortality data from EFP tows reported to NMFS monthly
- Field project managers on boats; reviewed deck sheets and spreadsheet data during EFP
- Error check and validation of data and calculation by independent reviewer following EFP

# Proposed elements of AKSC 2016 EFP

- Inclusion of other interested CP vessels beyond AKSC (other A. 80, TLAS, CDQ) vessels and fishing
- Identification and notice to NMFS and observer providers of which trips will be EFP so that FMA and observer providers can prepare for EFP (specifics of notification still under development)

## 2016 EFP Elements (continued)

- Trips that are not part of EFP will use the normal A. 80, TLAS, CDQ catch handling and sampling procedures
- Three observers required on all EFP trips
- Observers work on 8 hour shifts around the clock, no overlap, 4 hours for paperwork per shift for observers

# 2016 EFP Elements (continued)

- EFP catch accounting procedures for all hauls on EFP trips (no toggling in and out on EFP trips) 😊 😞
- Any halibut in factory accounted for via observer sampling in factory and default 90% mortality applied 😊 😨
- Basis for 90% mortality in factory is 2012 EFP where viabilities on halibut collected in factory done using same holding methods

## 2016 EFP Elements (continued)

- 2015 EFP sampling methods on deck as described in 2016 application (reference AFSC suggestions)
- Continuing camera monitoring on deck
- Crew census of halibut in factory with video monitoring (plus observer oversight, when present)
- Analysis of census to factory estimated halibut at conclusion of EFP to help inform future steps

# 2016 EFP Elements (continued)

- Observers will provide crew copies of deck sheets and factory sampling sheets so data can be entered into (2015) spreadsheets 
- Providing 4 hours for data checking and entry and providing copies of data sheets needed for “real time” performance tracking

## 2016 EFP Elements (continued)

- Observers will enter official halibut data from deck and factory into catch accounting system
- This requires some programming changes to Norpac and CAS which FMA and AKR have agreed to make
- A few EFP boats will try their concepts for a holding trough/holding tank with sea water circulation (may not be possible)

# EFP supports important research as noted by SSC

- NPRB/SK funded accelerometer tag releases (Dr. Rose/IPHC/UA/APU) to study survival (AKSC and Nunivak/Kuskokwim partners)
- Chute camera testing (automated lengths on deck)
- Pilot study on PIT tagging (IPHC supportive of EFP to explore methods to tag some deck-sorted fish to begin to study migration, probability of recapture, survival)

# Big Picture perspective for how to get to implementation (EFP PI perspective)

- 2016 EFP brings in key information (other sectors, use of observers; observer sampling to estimate factory halibut; data in catch accounting system; single catch handling protocol on EFP trips)
- What level of sampling is needed in implemented program?
- Balancing costs to industry and management, data quality, practicality; accessibility feasibility for different sectors/vessel sizes
- Agency/Industry/Council involvement required in future to get that balance right