Agenda Item E.6
Supplemental Attachment 4
April 2015

DETAILED DESCRIPTION OF REALLOCATION ALTERNATIVES AND KEY SUMMARY SLIDES

This document provides a detailed description of the alternatives with the percentages updated to reflect the final results from the analysis (corrected percentage - bold underline). Also, some of the key summary slides from the April 11, 2015 presentation are provided starting on page 5.

2.1.1 Reallocation Alternative 1 (No Action): Status Quo Widow QS Allocation

Alternative 1. **Detailed Description of Reallocation Alternative 1 (No Action): existing allocation formula**

Adaptive Management: 10 percent of the QS is set aside for adaptive management.
Equal division: No widow QS was allocated based on equal division of buyback history.
Whiting/Non-whiting Split: The allocation of the remaining QS was split between whiting and nonwhiting trips based on the proportions derived from the following allocations

Whiting Trips: 28 percent[1] of widow QS for whiting trips
Nonwhiting Trips: 62 percent[1] of the widow QS for nonwhiting trips

Historic Landings Formula for the 28 percent of the widow QS Distributed for Whiting Trips:
Distribute in proportion to each permit's whiting allocation--as specified in Amendment 20, Section A-2.1.3, for bycatch species and in regulations at 660.140(d)(8)(iv)(C)(2)(ii) (whiting trips, incidentally caught species).

Historic Landings Formula for the 62 percent of the widow QS Distributed for NonWhiting Trips:
Distribute based on the target species QS allocation to a permit, the permit's distribution of catch among areas as recorded in logbooks, and area specific fleet average bycatch rates and logbook information (using 2003-2006 WCGOP information)--as specified in Amendment 20, Section A-2.1.3, for overfished species taken incidentally on nonwhiting trips and in regulations at 660.140(d)(8)(iv)(B)(3) (nonwhiting trip Group 2 species).

[NOTE: 10% for AMP + 28% for whiting trips + 62% for nonwhiting trips equals 100%]

[1] The percent widow QS for each sector is derived as follows, where T = the trawl sector's allocation of widow:
Shorebased trawl whiting share of widow = T x 0.52 (whiting share) x 0.42 (shorebased share of whiting) = 0.22 T
Shorebased trawl nonwhiting share of widow = T x 0.48 (nonwhiting share) = 0.48 T
Total shorebased share = 0.22 T + 0.48 T = 0.7 T
Shorebased trawl whiting share of shorebased widow = 0.22T/0.7T = 0.31
Shorebased trawl nonwhiting share of shorebased widow = 0.48T/.7T = 0.69
Multiply both values by 0.9 to reduce result for the 10 percent AMP set aside.
0.31 x 0.9 = 0.28; 0.69 x 0.9 = 0.62

2.1.2. Reallocation Alternative 2: Use a Modified Version of the Amendment 20 Target Species Allocation Formula

Alternative 2. Detailed Description – Reallocation Alternative 2: Reallocate Widow QS[2] Using a Modified Version of the Amendment 20 Target Species Allocation Formula

Adaptive Management: Set aside 10 percent of all widow rockfish QS for adaptive management [achieve result specified at 660.140(d)(8)(iv)(F)].

Equal division: Equally divide among all permits,[2] a pool of QS determined using the 1994-2003 whiting and nonwhiting trip widow landings history from Federal limited entry groundfish permits that were retired through the Federal buyback program (70 FR 45695, August 8, 2005) [in conformity with the methods specified at 660.140(d)(8)(iv)(B)(2)(i) and 660.140(d)(8)(iv)(C)(1)]. Based on that process, the amount of all widow rockfish QS is expected to be allocated equally is ~~XX~~ 28.6% under suboption a and ~~YY~~ 30.6% under suboption b.

Whiting/Non-whiting Split: Divide the remaining widow QS between allocations for whiting and nonwhiting trips based on the following proportions [apply proportions as specified at 660.140(d)(8)(iv)(D) to the remaining __ widow QS].

Whiting Trips: The shorebased portion of the whiting sector allocation of widow (42 percent of 500 mt)

Suboption a: *Use an ACL of 2,000 mt* – ~~9.2~~ 12.3 percent of all widow QS will be allocated for whiting trips

Suboption b: *Use an ACL of 3,790 mt* – ~~4.3~~ 5.7 percent of all widow QS will be allocated for whiting trips

Nonwhiting Trips: The 2016 trawl allocation of widow minus 500 mt

Suboption a: *Use an ACL of 2,000 mt* – ~~52.8~~ 49.1 percent of all widow QS will be allocated for nonwhiting trips

Suboption b: *Use an ACL of 3,790 mt* – ~~57.7~~ 53.7 percent of all widow QS will be allocated for nonwhiting trips

Historic Landings Formula for the widow QS Distributed for Whiting Trips: Allocate to permits[2] for whiting trip history as specified for Alternative 1, No Action.

Historic Landings Formula for the widow QS Distributed for Non-Whiting Trips: Allocate to permits[2] for nonwhiting trip history as specified in Amendment 20, Section A-2.1.3, for nonoverfished species and in regulations at 660.140(d)(8)(iv)(B)(2)(ii) (nonwhiting trip Group 1 species) but modify the allocation period to 1994-2002. The formula includes the following elements for each permit

- use a 1994-2002 allocation period,
- measure a permit's widow landings for each year relative to the widow landings of the entire fleet (i.e. measure annual permit history as a percent of the fleet's total landings for a year),
- drop three lowest years

Divestiture Delay Suboptions: see Sections 2.1.5 and 2.1.6.

NOTE: the above, while listed in a different order than in the regulations, is intended to achieve QS allocations which would result from treating widow rockfish as a "Group 1 species" except that the period 1994-2002 would be used for the nonwhiting trip landings history instead of 1994-2003. The net effect with respect to the amount of QS used for each of the above bases for allocation is expected to be as follows.

Suboption a: 10% for AMP + ~~30.0~~ 28.6% for equal allocation + ~~8.9~~ 12.3% for whiting trips + ~~51.1~~ 49.1% for nonwhiting trip landing weight history equals 100%

Suboption b: 10% for AMP + ~~31.3~~ 30.6% for equal allocation + ~~4.0~~ 5.7% for whiting trips + ~~54.7~~ 53.7% for nonwhiting trip landing weight history equals 100%

[2] QS would be reallocated among the QS accounts based on the history of the LE trawl permits which were used to establish the accounts when the catch share program was first implemented under Amendment 20 (QS will not be reallocated to the current owners of the LE trawl permits except to the extent that the current QS account owners still own the permits originally used to establish the QS accounts). In situations for which QS allocations to multiple permits were combined into a single QS account at the time of initial allocation, the history of each permit will be evaluated individually, as was done under Amendment 20 (e.g. the worst years will be determined for each permit individually rather than determined collectively for all permits associated with a particular QS account)

2.1.3 Reallocation Alternative 3: Include Revenue Shares for 2003 through 2010 as a Proxy for Recent Participation

Alternative 3. **Detailed Description - Reallocation Alternative 3: Include Revenue Shares for 2003 through 2010 as a Proxy for Recent Participation**

Same as Reallocation Alternative 2[2] except modify the section on historic landings for nonwhiting trips as follows.

Historic Landings Formula for the widow QS Distributed for Non-Whiting Trips:

Allocation one half the widow QS to be distributed for nonwhiting trips as described in Alternative 2 (under Alternative 2 suboption a, ~~26.4~~ **24.6** percent of the QS, or under Alternative 2 suboption b ~~28.85~~ **26.8** percent of the QS):

Allocate to permits[2] for nonwhiting trip history as specified in Amendment 20, Section A-2.1.3, for nonoverfished species and in regulations at 660.140(d)(8)(iv)(B)(2)(ii) (nonwhiting trip Group 1 species) but modify the allocation period to 1994-2002. The formula includes the following elements for each permit

- use a 1994-2002 allocation period,
- measure a permit's widow landings for each year relative to the widow landings of the entire fleet (i.e. measure annual permit history as a percent of the fleet's total landings for a year),
- drop three lowest years

Allocation the other half of the widow QS to be distributed for nonwhiting trips as follows:

For each permit, [2] and with respect to the legal limited entry trawl landings of that permit

- use a 2003-2010 allocation period,
- measure a permit's nonwhiting exvessel revenue for each year during that period relative to the nonwhiting revenue of the entire fleet (i.e. as a percent of the fleet's total nonwhiting revenue for a year),
- Drop years: **Suboption a:** *Drop three worst years from the revenue calculation.* For the portion of the formula based on 2003 through 2010 revenue, a permit's three worst years of revenue would be dropped from the calculation.
  Suboption b: *No drop year provision for the revenue calculation.*

After completing these calculations the result for each permit is divided by the sum of the results for the entire fleet to determine each permits share of the QS allocated on the basis of this portion of the allocation formula.

Select Alternative 2 Suboptions: see Alternative 2.

Divestiture Delay Suboptions: see Sections 2.1.5 and 2.1.6.

The net effect with respect to the amount of QS used for each of the above bases for allocation is expected to be as follows.

When Combined With Alternative 2 Suboption a: 10% for AMP + ~~30.0~~ **28.6%** for equal allocation + ~~8.9~~ **12.3%** for whiting trips + ~~25.6~~ **24.6%** for nonwhiting trip landing weight history + ~~25.6~~ **24.6%** for nonwhiting trip landing revenue history equals 100%

When Combined With Alternative 2 Suboption b: 10% for AMP + ~~31.3~~ **30.6%** for equal allocation + ~~4.0~~ **5.7%** for whiting trips + ~~27.3~~ **26.8%** for nonwhiting trip landing weight history + ~~27.3~~ **26.8%** for nonwhiting trip landing revenue history equals 100%

2.1.4 Reallocation Alternative 4: Use a Pounds Neutral Reallocation

Alternative 4. Detailed Description - Reallocation Alternative 4: Pounds Neutral Reallocation

Neutral Step: Determine the amount of QS to leave in each QS account such that the amount of QP which would be issued to the account in 2016 would be the same as was issued in 2014. Based on the 2014 shorebased trawl allocation of 994 mt of widow rockfish and the 2016 shorebased trawl allocation of 1,421 mt of widow rockfish, every QS account would retain 70 percent of its total widow rockfish QS (994/1,421 = 70 percent).

90 percent of all widow QS is allocated among QS accounts.
Therefore a total 63 percent of all widow QS will be left in existing QS accounts (0.7 x 0.9 = 0.63)

Adaptive Management: Set aside 7 percent of all widow rockfish QS for adaptive management [an additional 3 percent will be set aside for AMP in the following step to achieve a 10 percent set aside][3]

Remainder: Allocate the remaining 30 percent among permits[2] based on the Alternative 2 allocation formula.

Application of Alternative 2 Suboption a			
Alternative 2 Allocation Basis	Total QS Allocated on this Basis Under Alt 2	Total QS to be Reallocated Under Alt 4	Total QS Reallocated on this Basis Under Alt 4
AMP Set Aside	10%	x 30% =	3.0%
Equal division	~~28~~ **28.6%**	x 30% =	~~9.0~~ **8.6%**
Whiting Trips	12.3%	x 30% =	~~2.7~~ **3.7** %
Nonwhiting Trips	~~53~~ **49.1**%	x 30% =	~~15.4~~**14.8%**
Total	100%		30%

Application of Alternative 2 Suboption b			
Alternative 2 Allocation Basis	Total QS Allocated on this Basis Under Alt 2	Total QS to be Reallocated Under Alt 4	Total QS Reallocated on this Basis Under Alt 4
AMP Set Aside	10%	x 30% =	3.0%
Equal division	~~28~~ **30.6%**	x 30% =	~~9.4~~ **9.2%**
Whiting Trips	5.7%	x 30% =	~~1.2~~ **1.7%**
Nonwhiting Trips	~~58~~ **53.7%**	x 30% =	~~16.4~~ **16.1%**
Total	100%		30%

Select Alternative 2 Suboptions: see Alternative 2.

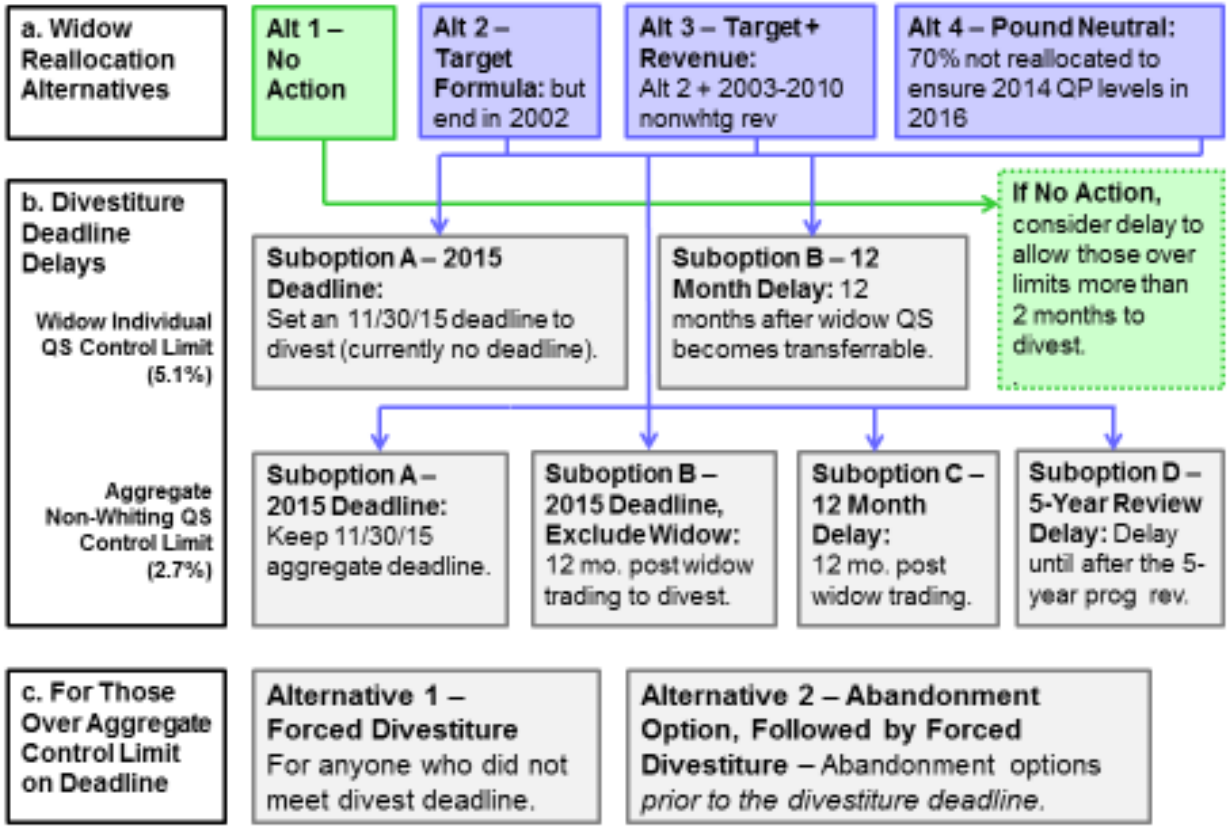
Divestiture Delay Suboptions: see Sections 2.1.5 and 2.1.6.

When Combined With Alternative 2 Suboption a: 10.0% for AMP + ~~9.0~~ 8.6% for equal allocation + ~~22.3~~ 23.4% for whiting trips + ~~58.7~~ 58.0% for nonwhiting trip landing weight history equals 100%

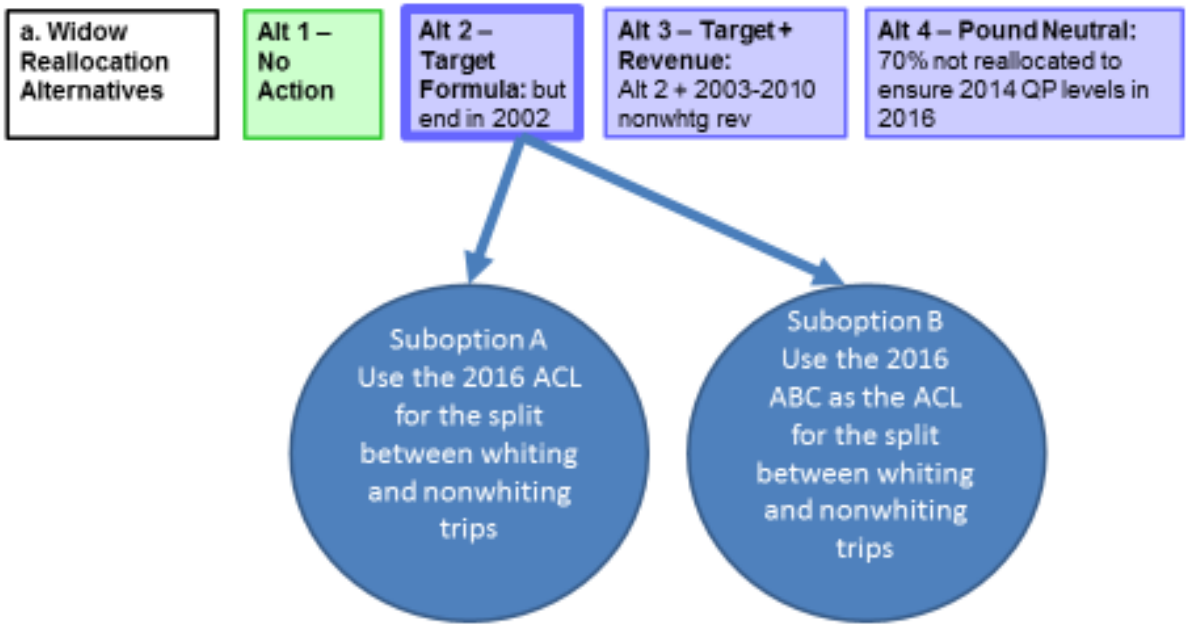
When Combined With Alternative 2 Suboption b: 10% for AMP +~~9.4~~ 9.2% for equal allocation + ~~20.8~~ 21.4% for whiting trips + ~~59.8~~ 59.4% for nonwhiting trip landing weight history equals 100%

[3] This approach to displaying the 10 percent set aside is taken to make it mathematically simpler to follow the relationship between this alternative and the Alternative 2 allocation formula.

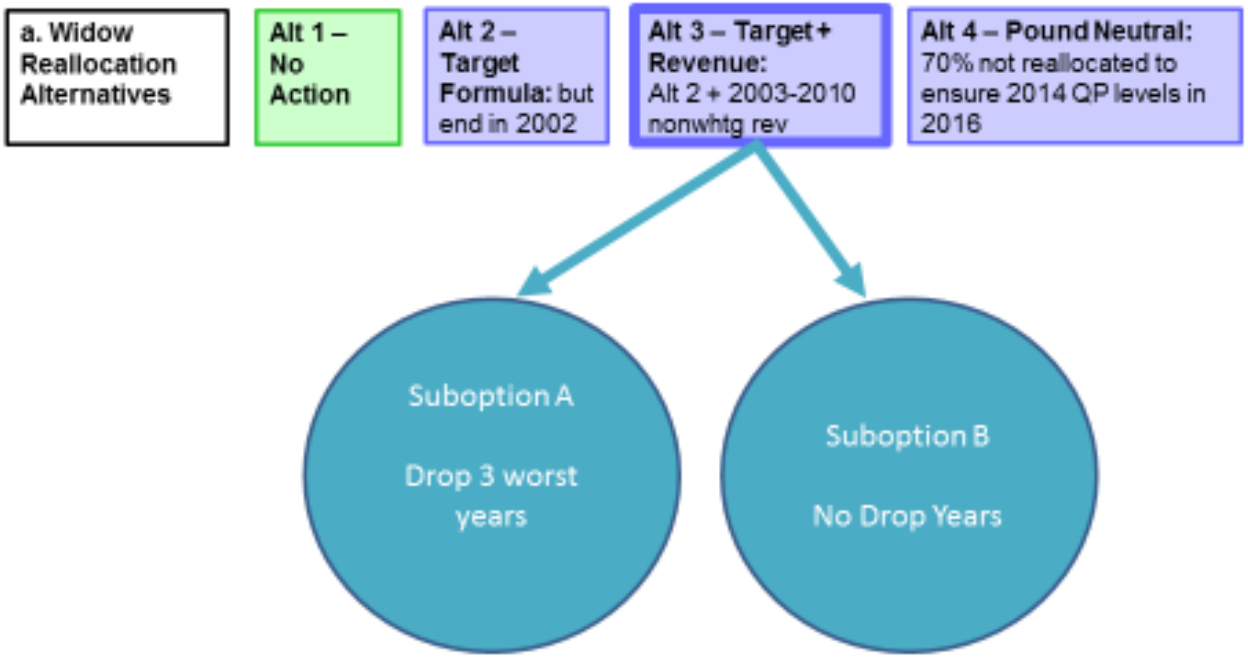
Widow Rockfish Reallocation and Divestiture Decisions

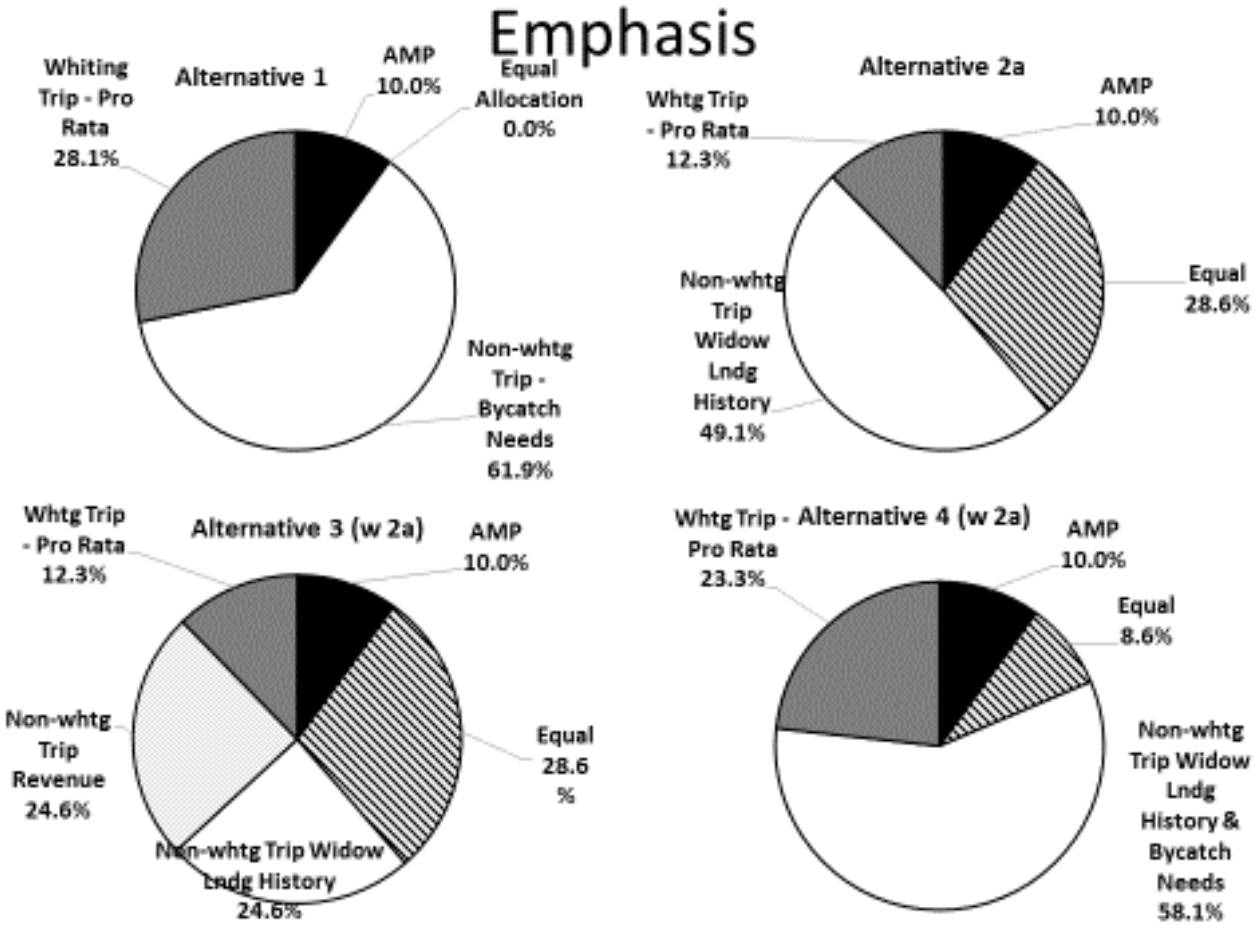


Widow Rockfish Reallocation and Divestiture Decisions

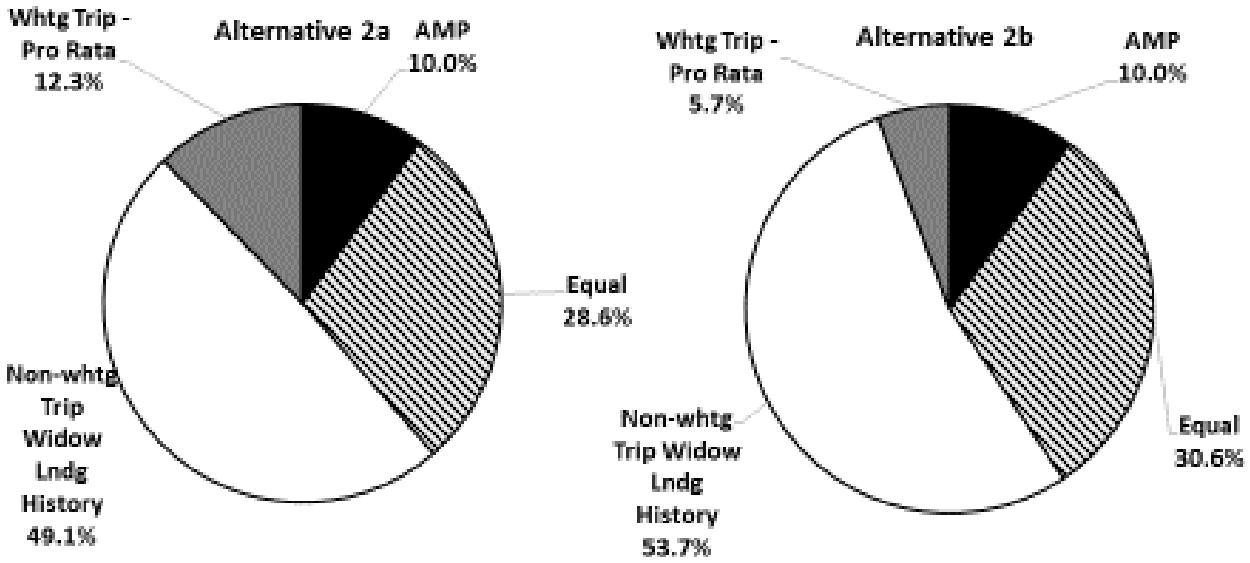


Widow Rockfish Reallocation and Divestiture Decisions




Emphasis
Alternative 1
Whiting Trip - Pro Rata 28.1%
AMP 10.0%
Equal Allocation 0.0%
Non-whtg Trip - Bycatch Needs 61.9%
Alternative 2a
Whtg Trip - Pro Rata 12.3%
AMP 10.0%
Equal 28.6%
Non-whtg Trip Widow Lndg History 49.1%
Alternative 3 (w 2a)
Whtg Trip - Pro Rata 12.3%
AMP 10.0%
Equal 28.6 %
Non-whtg Trip Revenue 24.6%
Non-whtg Trip Widow Lndg History 24.6%
Alternative 4 (w 2a)
Whtg Trip - Pro Rata 23.3%
AMP 10.0%
Equal 8.6%
Non-whtg Trip Widow Lndg History & Bycatch Needs 58.1%

Emphasis


Alternative 2a
Whtg Trip - Pro Rata 12.3%
AMP 10.0%
Equal 28.6%
Non-whtg Trip Widow Lndg History 49.1%
Alternative 2b
Whtg Trip - Pro Rata 5.7%
AMP 10.0%
Equal 30.6%
Non-whtg Trip Widow Lndg History 53.7%