

Agenda Item H.8.a. Supplemental GMT Report 2

RCAs, Allocations, and Harvest Guidelines

Action Item # 2: RCA Coordinate Updates

- Only considering minor adjustments now
- Non-trawl RCA and CCA stand-alone item slated for March
- **Support better aligning 40-fm non-trawl RCA off CA**

Action Item # 4: ACTs

Cowcod S of 40°10'

ACT preferred means to manage stocks

- For precaution and flexibility
- Goal of ACL ($P^*0.40$) support the ACT long-term
- Consider a range for analysis (eg. 40-60 mt)

Action Item # 4: ACTs

Shortbelly rockfish

- PPA is 3,000 mt ACL
- Oceana proposed lower ACT
 - Triggers mitigation at 500 mt
- But no effective mitigation tools
 - Bycatch widespread in space and time
 - BRAs available, but not surgical enough
- Voluntary whiting coop actions
 - ACLs increase incentive

Action Item # 5: HGs for stocks within a complex

Oregon black/blue/deacon complex

Oregon cabezon/kelp greenling complex

- Newly created complexes for 2019-20
- Concerns over “inflators”
- Could could set HGs at component ACLs
- But unnecessary - already done via state allocations
- **GMT does not recommend HGs**

Action Item # 5: HGs for stocks in complex

Blackgill rockfish / Southern Slope

5 related tasks to meet these goals:

- **Considered removing blackgill from complex (A-26)**
 - Better ability to manage to ACL for IFQ with blackgill QP
 - Stock of concern: low productivity, precautionary zone
 - \$ benefit for non-trawl: if shift blackgill allocation %
 - \$ benefit for trawl: shift allocation % other slope
- **But Council rescinded A-26 and kept blackgill in complex**
 - Reduces constraints for IFQ
 - But everyone agreed on other A-26 goals
 - Challenging when left in
 - “GMT: find a creative solution for 2021-22”

Action Item # 5: HGs for stocks in complex

Blackgill Task 1: Set an HG for blackgill = component ACL

- Creates management target for conservation

Blackgill Task 2: Establish trawl / non-trawl shares of blackgill

- Use FPA % from rescinded A-26
- As main goal more to non-trawl

Sector	2021	2022
HG	176.5	174.0
Trawl share (41%)	72.4	71.4
Non-trawl share (59%)	104.2	102.7

Action Item # 5: HGs for stocks in complex

Blackgill Task 3: Set trip limits to keep non-trawl to their share

- Increases to trip limits proposed in Report 3

Blackgill Task 4: New method to keep IFQ to their share

- QP main IFQ tool, but may not work:
 - Easy had blackgill been removed -> Blackgill QP
 - But a challenge since kept in -> Slope QP
 - Problem: Slope QP can exceed BG harvest goals
- So GMT proposes low blackgill trip limit for IFQ
 - IFQ trip limits used elsewhere
 - Early indications OK from General Counsel
 - Effective to reduce blackgill mortality as is targeted
 - Trip limit set inseason if approach IFQ share

Blackgill Task 5: Change hard-wired A-21 slope allocations

- Now to A-26 goal of more “other slope” to IFQ
 - Removing blackgill would’ve created “other slope” complex
 - FPA was to raise IFQ to 91% since trawl dominant spp.
 - Keeping blackgill in complex creates “other slope” challenge
- Can still meet both A-26 goals
 - Part A: Divided up blackgill
 - Part B: Now divide up “other” non-blackgill species

“Other” ACL Contributions		2021 share (mt)		2022 share (mt)		Range 2011-2018 mort. (mt)	
2021	2022	Trawl (91%)	Non-trawl (9%)	Trawl (91%)	Non-trawl (9%)	Trawl	Non-trawl
532.5	531.0	484.5	47.9	483.2	47.8	36 - 60	4 - 14

Blackgill Task 5: Change hard-wired A-21 slope allocations

- Now just need to sum both parts
 - While accounting for off-the-tops
- **Need to amend FMP (drop A-21 slope)**
- And make two-year allocation stock
 - Can't just use a fixed %
 - Need to recompute #s each cycle

Category	2021		2022	
	Trawl (mt)	Non-trawl (mt)	Trawl (mt)	Non-trawl (mt)
Blackgill share	72.4	104.2	71.4	102.7
Other slope share	484.5	47.9	483.2	47.8
Total share	556.9	152.1	554.5	150.5
% of total share	78.3%	21.7%	78.4%	21.6%
Total combined off-top	39.0		39.0	
Apportioned off-top	30.6	8.4	30.6	8.3
Final two year allocation	526.3	143.7	523.9	142.2

Action Item # 6: Two-year trawl / non-trawl allocations

GMT recommends only analyzing No Action for:

Stock	Trawl Proportion	Non-trawl Proportion
Yelloweye RF	8%	92%
Big skate	95%	5%
Longnose skate	90%	10%
Shelf RF N 40°10'	60.2%	39.8%
Shelf RF S 40°10'	12.2%	87.8%
Bocaccio S 40°10'	39%	61%
Cowcod S 40°10'	36%	64%

Action Item # 6: Two-year trawl / non-trawl allocations

Canary RF:

- Impacted by all sectors
- Two-year allocations a main focus of 2017-2018 cycle
 - How to allocate large ACL gains with stock rebuilt?
- Council adopted following bottom-up approach:
 - #1: Fixed amounts for “needs” of non-trawl sectors
 - #2: Fixed amounts for at-sea bycatch (hard-cap species then)
 - #3: Remainder to IFQ: reduce constraints with more prolific targets
- Council adopted different approach in 2019-20
 - Uses %'s for each (but fixed for at-sea) = SQ
 - Non-trawl dropped below fixed amounts from 2017-18
 - As all absorbed declines with ACL

Sector	Fixed Amount (mt)
Catcher-Processor	16
Mothership	30
Non-nearshore	46.5
Nearshore	100
WA Rec	50
OR Rec	75
CA Rec	135

Action Item # 6: Two-year trawl / non-trawl allocations

Adjusting the canary at-sea set-aside as part of the two-year allocation process

- Used to be sector-specific hardcap allocations
- Now: Sector-specific set-asides
 - 16 mt CP
 - 30 mt MS
- **GMT proposal: NEW single 10 mt set-aside**
 - Covers historical bycatch and splits no longer needed

Historical Total Mortality in the at-sea sectors (mt)

YEAR	2011	2012	2013	2014	2015	2016	2017	2018
CP	0.5	0.3	0.2	0.3	0.1	0.1	2.1	0.9
MS	0.1	0.1	0.5	0.4	0.1	0.4	4.5	4.7
TOTAL	0.5	0.4	0.7	0.6	0.2	0.5	6.6	5.5

Action Item # 6: Two-year trawl / non-trawl allocations

Canary: Two Alts

Option 1:

- Maintain status quo (fixed percentages)
- Non-trawl below fixed amounts

Option 2:

- Keep non-trawl at 2017-18 fixed amounts
- IFQ absorbs full ACL reduction
 - -54 mt IFQ allocation in 2021

Option 3:

- Reduce at-sea to 10 mt set-aside
 - Covers their bycatch
 - No longer hard-caps
- +36 mt extra to shift to IFQ

	Option 1: SQ (mt)	Option 2: Fixed Non-trawl and at-sea (mt)	Option 3: Fix non-trawl + reduce at-sea (mt)	2017-2018 avg. (mt)
Year	2021	2021	2021	
ACL	1,338	1,338	1,338	
Off-the-top	66	66	66	
Fishery HG	1,272	1,272	1,272	
Trawl Allocation	919.3	865	865	
(trawl %)	72.3%	68.0%	68.0%	
--IFQ	873	819	855	343
--CP	16	16	10	1
--MS	30	30		5
Non-trawl	352.2	406.5	406.5	
(non-trawl %)	27.7%	32.0%	32.0%	
--Non-nearshore (11.4%)	40.2	46.5	46.5	5
--Nearshore (24.6%)	86.6	100	100	8
--WA Rec (12.3%)	43.3	50	50	5
--OR Rec (18.5%)	65.2	75	75	33
--CA Rec (33.2%)	116.9	135	135	72

Action Item # 7: Change A-21 hard-wired trawl / non-trawl allocations to two-year allocations?

- Analyzed in 2017 [intersector review](#) process
- Council postponed - can do now

Blackgill / Southern Slope

- A-21 allocations
 - 63% Trawl
 - 37% Non-trawl
- Recommend the new custom approach

Category	2021		2022	
	Trawl (mt)	Non-trawl (mt)	Trawl (mt)	Non-trawl (mt)
Blackgill share	72.4	104.2	71.4	102.7
Other slope share	484.5	47.9	483.2	47.8
Total share	556.9	152.1	554.5	150.5
% of total share	78.3%	21.7%	78.4%	21.6%
Total combined off-top	39.0		39.0	
Apportioned off-top	30.6	8.4	30.6	8.3
Final two year allocation	526.3	143.7	523.9	142.2 ¹⁵

Action Item # 7: Change A-21 hard-wired trawl / non-trawl allocations to two-year allocations?

Lingcod S 40°10'

- Currently A-21:
 - 45% trawl
 - 55% non-trawl
- Non-trawl constrained
- Low trawl attainment

GMT recommendations:

- #1: Change to two-year allocations
- #2: Consider raising non-trawl %
 - Alt 1 = 57%
 - Alt 2 up to 75% (bookend)

Year	ACL (mt)	Fishery HG (mt)	Trawl Alloc. (45%)	Trawl Hist Mort. (mt)	% attain.	Non-Trawl Alloc. (55%)	Non-Trawl Hist Mort. (mt)	% attain.
2021	1,102	1091	491	7.3 - 51.5	1- 10%	600	352.3 - 828	31 - 161%
2022	1,172	1161	522.5			638.5		

Action Item # 7: Change A-21 hard-wired trawl / non-trawl allocations to two-year allocations?

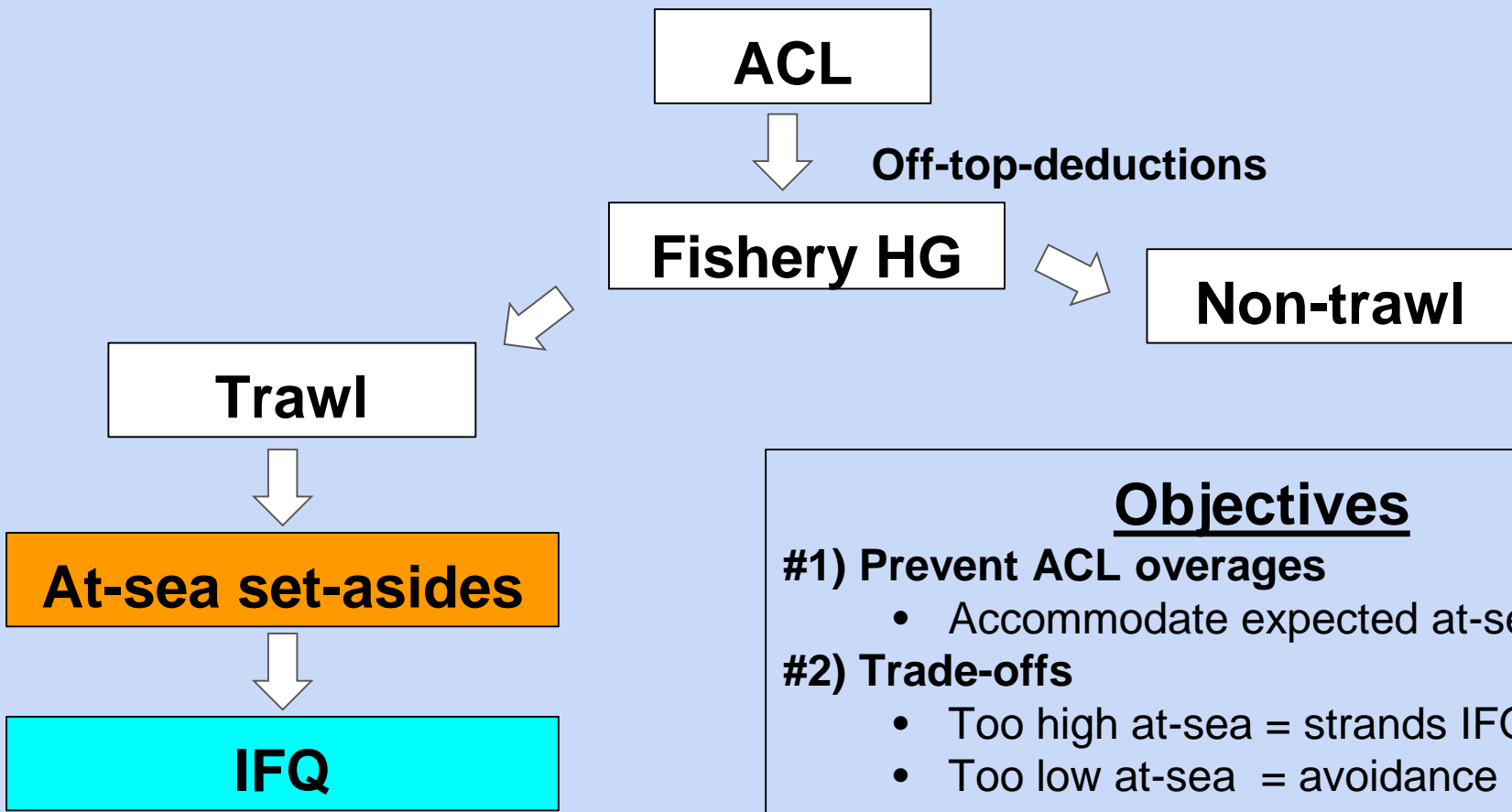
Other stocks?

- GMT suggested lingcod South of 40'10 during [intersector review](#)
 - But little benefit for revising other stocks
- Council tasked the GMT to revisit this in the 2021-2022 Management Measures
 - Again, GMT sees minimal benefit for others (but we can analyze requests if desired)

Action Item # 8

- This action item is no longer needed as NMFS is in the process of converting the former allocations to set-asides through Amendment 21-3.

Action Item # 9: At-sea set-asides



- Objectives**
- #1) Prevent ACL overages
 - Accommodate expected at-sea bycatch
 - #2) Trade-offs
 - Too high at-sea = strands IFQ \$ target
 - Too low at-sea = avoidance \$ costs
 - Too low at-sea = potential risk to ACL¹⁹

Action Item # 9: At-sea set-asides

Sablefish

- SQ 50 mt set-aside has been exceeded in 2017-2019
- High bycatch linked to strong recruitment
 - Strong 2016 class caught in 2017 and 2018
 - Potential strong 2018 year class may result in possible highs in 2019 and 2020
- Overages jeopardize ACL
- Higher set-aside negatively impacts trawl sector

At-sea sablefish N. catch (mt) 2011-2018 with a 2019 year-end projection

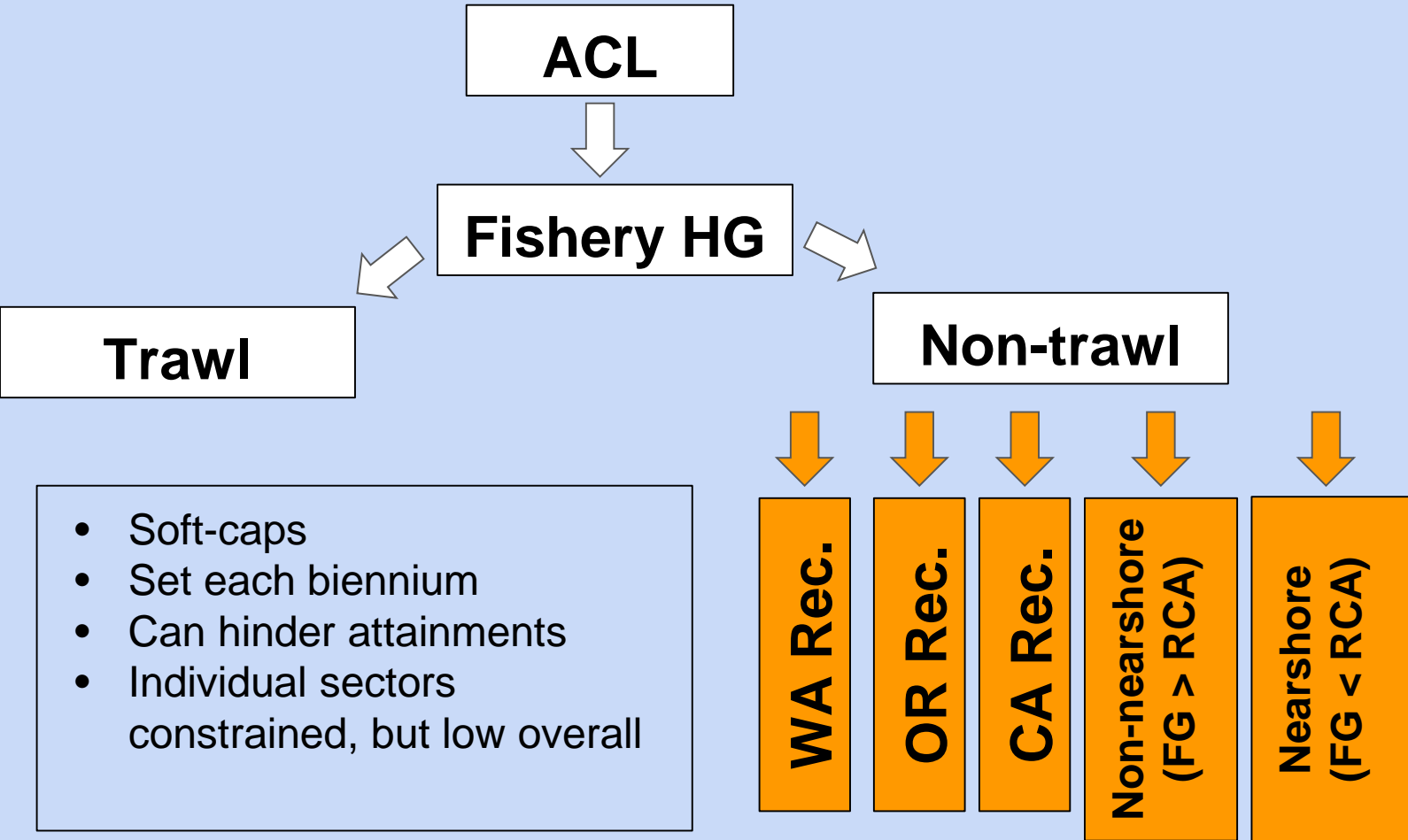
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019 projection
At-sea	5	5	13	16	12	28	153	117	75

Action Item # 9: At-sea set-asides

Everything besides sablefish:

- GMT analyzed formulas for Pacific ocean perch, darkblotched and widow rockfishes
- For stocks with lower ACL attainment: **recommend replacing the combination of formula/recent high/default from previous cycles approach with a recent (five) year average** to better approximate expected catch in the upcoming biennium over time
- Eliminate zero catch species from regulation
- Combine sector-specific values (no longer hard-cap allocations)

Action Item # 9: Within Non-trawl HGs/Shares



Action Item #10: Within Non-Trawl HGs/Shares

Yelloweye Rockfish

- Main focus of 2019-20 cycle
- Yelloweye rockfish rebuilding well ahead schedule
- ACL set based on more aggressive SPR (Alt 2)
- Non-trawl uses both an ACT and HGs for precaution and flexibility
 - Manage to lower ACT (SPR Alt 1)
 - But a higher HG for cushion (SPR Alt 2)

Sector	2019 HG (mt)	2019 ACT (mt)
Non- Nearshore	2	1.6
Nearshore	6	4.7
WA Rec.	10	7.8
OR Rec.	8.9	7
CA Rec	11.6	9.1
Total	38.5	30.2

Action Item #10: Within Non-Trawl HGs/Shares

Cowcod S 40°10'

Recommend analyzing FG shares

- 50-50 split of the non-trawl allocation to recreational and FG

Bocaccio S 40°10'

Recommend combining the non-nearshore and nearshore

- 0.4% to nearshore has no function
- Remnant from overfished era

Sector	2018 Allocation (mt)	SQ %
Non-Trawl	442.3	100%
Non-Nearshore	135.1	30.5%
Nearshore	1.7	0.4%
CA Rec.	305.5	69.1% ²⁴

Action Item #10: Within Non-Trawl HGs/Shares

LEFG and OA southern sablefish

- Uses a 70% LEFG and 30% OA split
- Was a 55-45% split before 2017
- Shifted more to LE since OA attainment low (<10%)
- **No action appears fine for now**
- Can readdress next cycle if needed

Action Item #10: Within Non-Trawl HGs/Shares

State shares of nearshore rockfish north complex

- Recommend no change = biological apportionment
- **SEE TABLE 37**

Questions?

Action Item # 9: At-sea set-asides

Darkblotched Rockfish

- Had sector-specific hard-cap allocations
 - Based on hard-wired A-21 formulas
- Council changed to set-asides (cite rule)
 - Tasked GMT to analyze formulas to start in 2021-22/consider changes
- Warrants higher review
 - At-sea exceeds set-asides
 - IFQ concerned with constraints (RCA re-opening)

Year	ACL	Fishery HG	Trawl allocation (95%)	Whiting (9%)	MS (24%)	CP (34%)	IFQ
2021	882.0	848	805.6	72.5	17.4	24.7	763.5
2022	831.0	797.1	757.3	68.2	16.4	23.2	717.7

Action Item # 9: At-sea set-asides

Darkblotched Rockfish

Sector	Total mortality (mt)									Option 1: Use formulas	
	2011	2012	2013	2014	2015	2016	2017	2018	2019 prediction	2021	2022
CP	10.3	1.4	2.1	3.4	5.6	3.5	32.0	41.8	21.0	24.7	23.2
MS	1.7	1.3	4.2	7.2	2.4	1.6	7.6	23.2	31.0	17.4	16.4
Total at-sea	12.0	2.7	6.3	10.6	7.9	5.1	39.6	65.1	51.0	42.1	39.6
IFQ	90.9	90.5	116.2	98.0	122.9	121.0	184.4	267.5	310.0	763.5	717.7

Action Item # 9: At-sea set-asides

Pacific ocean perch

- Same background as darkblotched rockfish
- Frequently caused constraints when overfished
- Less focus and concern now rebuilt with higher quotas

A-21 formulas

CP: 210.3 mt and 205.7 mt (2021-22)

MS: 148.4 mt and 145.2 mt (2021-22)

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019 prediction
CP	6.5	3.2	4.3	0.3	7.0	3.1	20.3	30.8	16.4
MS	0.7	1.4	1.1	3.6	1.7	7.2	5.9	24.8	12
Total at-sea	7.2	4.5	5.4	3.9	8.7	10.3	26.3	55.6	28.4

Action Item # 9: At-sea set-asides

Widow Rockfish

- Same story as Pacific ocean perch, but less constraining when the stock was overfished

A-21 formulas

CP = 447.9 and 418.9 mt (2021-22)

MS = 316.2 and 295.7 mt (2021-22)

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019 Prediction
CP	24.1	42.0	15.7	16.6	17.5	112.3	409.9	62.6	132.9
MS	12.9	37.3	15.5	39.6	17.2	74.4	66.1	144.3	125.3
Total	37.0	79.3	31.3	56.2	34.7	186.7	476.0	206.9	258.3