

ALTERNATIVE HARVEST PROJECTIONS FOR ENGLISH SOLE, REX SOLE,
SHARPCHIN ROCKFISH, AND YELLOWTAIL ROCKFISH NORTH OF 40°10' N
LATITUDE USED TO INFORM HARVEST SPECIFICATIONS FOR 2017 AND BEYOND

The following tables provide ten-year harvest projections requested to inform 2017 and 2018 harvest specifications. These projections were requested alternative specifications for consideration by the SSC and Council in November. The following tables are included in this attachment:

- Table 1. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 English sole assessment assuming future ACL removals (same as Table 8 in Agenda Item I.4, Attachment 4).
- Table 2. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 English sole assessment assuming future removals are equal to recent year average catch.
- Table 3. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 rex sole assessment assuming future ACL removals (same as Table 12 in Agenda Item I.4, Attachment 4).
- Table 4. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 rex sole assessment assuming future removals are equal to recent year average catch.
- Table 5. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 sharpchin rockfish assessment assuming future ACL removals (same as Table 13 in Agenda Item I.4, Attachment 4).
- Table 6. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 sharpchin rockfish assessment assuming future removals are equal to recent year average catch.
- Table 7. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 assessment of yellowtail rockfish north of 40°10' N latitude assuming future ACL removals (REVISED Table 15 in Agenda Item I.4, Attachment 4).
- Table 8. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 assessment of yellowtail rockfish north of 40°10' N latitude assuming future removals are equal to recent year average catch.

Table 1. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 English sole assessment assuming future ACL removals (same as Table 8 in Agenda Item I.4, Attachment 4).

| Year | OFL | ACL | SB | Depletion |
|-------------|------------|------------|-----------|------------------|
| 2013 | 10,487 | 355 | 25,719 | 88% |
| 2014 | 10,623 | 254 | 26,019 | 89% |
| 2015 | 10,755 | 300 | 26,377 | 90% |
| 2016 | 10,852 | 300 | 26,620 | 91% |
| 2017 | 10,914 | 9,964 | 26,854 | 92% |
| 2018 | 8,255 | 7,529 | 19,266 | 66% |
| 2019 | 6,697 | 6,115 | 14,668 | 51% |
| 2020 | 5,799 | 5,294 | 12,212 | 42% |
| 2021 | 5,301 | 4,834 | 10,878 | 37% |
| 2022 | 4,994 | 4,559 | 10,159 | 35% |
| 2023 | 4,793 | 4,376 | 9,739 | 33% |
| 2024 | 4,642 | 4,238 | 9,445 | 32% |
| 2025 | 4,529 | 4,134 | 9,235 | 32% |
| 2026 | 4,452 | 4,064 | 9,059 | 31% |

Table 2. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 English sole assessment assuming future removals are equal to recent year average catch.

| Year | OFL | ABC/ACL (2017 and beyond under default HCRs) | Removal Assumption | SB | Depletion |
|-------------|------------|---|---------------------------|-----------|------------------|
| 2013 | 10,487 | 6,815 | 355 | 25,719 | 88% |
| 2014 | 10,623 | 5,646 | 254 | 26,019 | 89% |
| 2015 | 10,755 | 9,853 | 300 | 26,377 | 90% |
| 2016 | 10,852 | 7,204 | 300 | 26,620 | 91% |
| 2017 | 10,914 | 9,964 | 300 | 26,854 | 92% |
| 2018 | 10,998 | 10,041 | 300 | 27,050 | 92% |
| 2019 | 11,052 | 10,091 | 300 | 27,190 | 93% |
| 2020 | 11,101 | 10,136 | 300 | 27,319 | 93% |
| 2021 | 11,144 | 10,175 | 300 | 27,380 | 94% |
| 2022 | 11,165 | 10,194 | 300 | 27,429 | 94% |
| 2023 | 11,198 | 10,224 | 300 | 27,468 | 94% |
| 2024 | 11,240 | 10,262 | 300 | 27,499 | 94% |
| 2025 | 11,262 | 10,282 | 300 | 27,559 | 94% |
| 2026 | 11,293 | 10,311 | 300 | 27,618 | 94% |

Table 3. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 rex sole assessment assuming future ACL removals (same as Table 12 in Agenda Item I.4, Attachment 4).

| Year | OFL | ACL | SB | Depletion |
|------|-------|-------|-------|-----------|
| 2013 | 5,069 | 560 | 2,481 | 78% |
| 2014 | 5,174 | 409 | 2,500 | 79% |
| 2015 | 5,313 | 486 | 2,539 | 80% |
| 2016 | 5,410 | 486 | 2,577 | 81% |
| 2017 | 5,476 | 4,999 | 2,596 | 82% |
| 2018 | 4,001 | 3,639 | 1,866 | 59% |
| 2019 | 3,061 | 2,786 | 1,460 | 47% |
| 2020 | 2,513 | 2,291 | 1,238 | 39% |
| 2021 | 2,218 | 2,019 | 1,120 | 36% |
| 2022 | 2,052 | 1,858 | 1,054 | 34% |
| 2023 | 1,944 | 1,772 | 1,016 | 33% |
| 2024 | 1,876 | 1,708 | 993 | 32% |
| 2025 | 1,830 | 1,670 | 974 | 31% |
| 2026 | 1,798 | 1,639 | 963 | 31% |

Table 4. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 rex sole assessment assuming future removals are equal to recent year average catch.

| Year | OFL | ABC/ACL (2017 and beyond under default HCRs) | Removal Assumption | SB | Depletion |
|------|-------|--|--------------------|-------|-----------|
| 2013 | 5,139 | 3,034 | 560 | 2,550 | 78% |
| 2014 | 5,229 | 3,034 | 409 | 2,577 | 79% |
| 2015 | 5,336 | 4,801 | 486 | 2,603 | 80% |
| 2016 | 5,437 | 3,295 | 486 | 2,628 | 81% |
| 2017 | 5,518 | 4,597 | 486 | 2,648 | 82% |
| 2018 | 5,582 | 4,650 | 486 | 2,671 | 83% |
| 2019 | 5,645 | 4,702 | 486 | 2,685 | 83% |
| 2020 | 5,697 | 4,745 | 486 | 2,694 | 83% |
| 2021 | 5,737 | 4,779 | 486 | 2,708 | 84% |
| 2022 | 5,779 | 4,814 | 486 | 2,713 | 84% |
| 2023 | 5,817 | 4,846 | 486 | 2,723 | 84% |
| 2024 | 5,856 | 4,878 | 486 | 2,731 | 85% |
| 2025 | 5,891 | 4,907 | 486 | 2,736 | 85% |
| 2026 | 5,918 | 4,930 | 486 | 2,745 | 85% |

Table 5. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 sharpchin rockfish assessment assuming future ACL removals (same as Table 13 in Agenda Item I.4, Attachment 4).

| Year | OFL | ACL | SB | Depletion |
|------|-----|-----|-------|-----------|
| 2013 | 436 | 11 | 5,708 | 71% |
| 2014 | 441 | 10 | 5,842 | 72% |
| 2015 | 446 | 11 | 5,973 | 74% |
| 2016 | 450 | 11 | 6,101 | 75% |
| 2017 | 455 | 415 | 6,226 | 76% |
| 2018 | 448 | 409 | 5,981 | 75% |
| 2019 | 441 | 403 | 5,885 | 73% |
| 2020 | 435 | 397 | 5,672 | 71% |
| 2021 | 428 | 391 | 5,576 | 69% |
| 2022 | 422 | 385 | 5,368 | 67% |
| 2023 | 413 | 377 | 5,294 | 66% |
| 2024 | 405 | 370 | 5,229 | 64% |
| 2025 | 398 | 363 | 5,169 | 63% |
| 2026 | 391 | 357 | 5,082 | 61% |

Table 6. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 sharpchin rockfish assessment assuming future removals are equal to recent year average catch.

| Year | OFL | ABC/ACL (2017 and beyond under default HCRs) | Removal Assumption | SB | Depletion |
|------|-----|--|--------------------|-------|-----------|
| 2013 | 436 | 187 | 11 | 5,708 | 71% |
| 2014 | 441 | 187 | 10 | 5,842 | 72% |
| 2015 | 446 | 380 | 11 | 5,973 | 74% |
| 2016 | 450 | 369 | 11 | 6,101 | 75% |
| 2017 | 456 | 436 | 11 | 6,226 | 77% |
| 2018 | 463 | 442 | 11 | 6,334 | 78% |
| 2019 | 469 | 448 | 11 | 6,406 | 79% |
| 2020 | 475 | 454 | 11 | 6,474 | 80% |
| 2021 | 481 | 460 | 11 | 6,596 | 81% |
| 2022 | 487 | 466 | 11 | 6,715 | 82% |
| 2023 | 493 | 471 | 11 | 6,821 | 83% |
| 2024 | 499 | 477 | 11 | 6,899 | 84% |
| 2025 | 504 | 482 | 11 | 6,928 | 84% |
| 2026 | 508 | 486 | 11 | 6,954 | 85% |

Table 7. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 assessment of yellowtail rockfish north of 40°10' N latitude assuming future ACL removals (REVISED Table 15 in Agenda Item I.4, Attachment 4).

| Year | OFL | ACL | SB | Depletion |
|------|-------|-------|--------|-----------|
| 2013 | 6,972 | 1,476 | 50,058 | 67% |
| 2014 | 7,088 | 1,449 | 51,100 | 68% |
| 2015 | 7,222 | 6,590 | 52,122 | 69% |
| 2016 | 6,980 | 6,344 | 50,122 | 67% |
| 2017 | 6,786 | 6,196 | 48,453 | 65% |
| 2018 | 6,574 | 6,002 | 47,313 | 63% |
| 2019 | 6,405 | 5,848 | 46,657 | 61% |
| 2020 | 6,266 | 5,721 | 45,936 | 59% |
| 2021 | 6,142 | 5,608 | 45,121 | 58% |
| 2022 | 6,031 | 5,506 | 44,374 | 57% |
| 2023 | 5,932 | 5,416 | 43,747 | 56% |
| 2024 | 5,846 | 5,338 | 43,339 | 55% |
| 2025 | 5,770 | 5,268 | 42,942 | 54% |
| 2026 | 5,700 | 5,204 | 42,467 | 54% |

Table 8. Projected harvest specifications, spawning biomass, and depletion for the coastwide model in the 2013 assessment of yellowtail rockfish north of 40°10' N latitude assuming future removals are equal to recent year average catch.

| Year | OFL | ABC/ACL (2017 and beyond under default HCRs) | Removal Assumption | SB | Depletion |
|------|-------|--|--------------------|--------|-----------|
| 2013 | 6,980 | 4,378 | 1,476 | 50,058 | 67% |
| 2014 | 7,088 | 4,382 | 1,449 | 51,100 | 68% |
| 2015 | 7,222 | 6,590 | 1,411 | 52,122 | 69% |
| 2016 | 7,321 | 6,344 | 1,411 | 53,118 | 71% |
| 2017 | 7,409 | 7,083 | 1,411 | 54,289 | 71% |
| 2018 | 7,490 | 7,160 | 1,411 | 55,158 | 73% |
| 2019 | 7,591 | 7,257 | 1,411 | 55,889 | 73% |
| 2020 | 7,680 | 7,342 | 1,411 | 56,809 | 74% |
| 2021 | 7,753 | 7,412 | 1,411 | 57,735 | 75% |
| 2022 | 7,833 | 7,488 | 1,411 | 58,619 | 76% |
| 2023 | 7,906 | 7,558 | 1,411 | 59,242 | 77% |
| 2024 | 7,980 | 7,629 | 1,411 | 59,908 | 77% |
| 2025 | 8,042 | 7,688 | 1,411 | 60,626 | 78% |
| 2026 | 8,106 | 7,749 | 1,411 | 61,040 | 79% |