# Appendix C
# Modeling of Fisheries Impacts

## CCWD Alternative Intake Project, California
## Special Study Report

*Prepared by*

**Bureau of Reclamation**
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# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AIP | Alternative Intake Project |
| CCWD | Contra Costa Water District |
| CDFG | California Department of Fish and Game |
| cfs | cubic feet per second |
| CVP | Central Valley Project |
| Delta | Sacramento-San Joaquin Delta |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| mm | millimeter |
| TWSA | treated water service area |
| WTP | Water Treatment Plant |

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# Appendix C
# Modeling of Fisheries Impacts

As part of the Alternative Intake Project (AIP) Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (CCWD and Reclamation, 2006), system operations, hydrodynamic, and water quality modeling were completed for multiple alternative plans. The AIP Special Study Report retained two plans from the AIP EIS/EIR and added a third alternative to be evaluated, in addition to the No-Action Plan alternative. This appendix summarizes modeling assumptions, analysis, and results from the AIP EIS/EIR, and also presents model assumptions and results for the added third alternative. The purpose of this modeling effort was to evaluate and compare fisheries impacts associated with proposed operations of CCWD's (Delta) intakes under each of the project alternatives. This appendix draws substantially from work already published by Contra Costa Water District (CCWD) as part of the AIP EIS/EIR.

## Alternative Plans

This section describes a set of four alternative plans formulated and retained for further development based on the screened resources management measures discussed in Chapter 3 of the AIP Special Study Report. These plans include the No-Action Plan (i.e., future-without-Project) and action Alternative Plans 1 through 3. It should be noted that the order in which the plans appear is not indicative of their performance or standing.

### No-Action Plan

The No-Action Plan (i.e., future without-project) would entail CCWD continuing to operate and maintain its existing facilities to maximize delivered water quality consistent with environmental regulations and permit conditions. As a result of projected future levels of demand, the No-Action Plan includes the expansion of the Old River pump station to 320 cubic feet per second (cfs) consistent with the CCWD Future Water Supply Implementation EIR (CCWD, 1998).

### Alternative Plan 1

Plan 1 would preserve CCWD's existing intakes and add a new intake location on Victoria Canal. The new intake on Victoria Canal would protect and improve delivered water quality for CCWD customers by enabling CCWD to relocate some of its existing diversions at the Old River intake to Victoria Canal, a Delta location with better source water quality at certain times of the year than is currently available at the Old River intake. Victoria Canal connects the Middle River and Old River.

### Alternative Plan 2

Plan 2 would install desalination treatment processes to reduce salinity and improve the quality of supplies delivered from the Bollman Water Treatment Plant (WTP). It would also reduce overall demands on the Rock Slough unscreened intake by increasing diversions through the screened Mallard Slough intake. The plan would require expansion of the existing Mallard Slough intake and pump station, as well as treatment capacity expansion for the desalination plant. This expansion would serve the demands of the treated water service area (TWSA) customers currently served by the Bollman WTP. It would also reduce overall demands on the Contra Costa Canal such that the canal would primarily serve CCWD's untreated-water customers.

### Alternative Plan 3

Plan 3 would move the existing CCWD Rock Slough intake to a new location on the Middle River, opposite Bacon Island, that would provide better water quality. The plan would involve building a new screened intake and pump station on the Middle River that would feed CCWD's existing Pumping Plant No. 1 through a pipeline to the Contra Costa Canal entrance. To eliminate potential water quality deterioration in the Contra Costa Canal sections between Pumping Plant No. 1 and the canal entrance, this plan assumes that the Contra Costa Canal Encasement Project would be implemented, and is part of the Future No-Action Plan. The new screened intake would contribute to overall reduction in fisheries mortality rates compared to the current unscreened intake on Rock Slough.

## Modeling Methodology

Average monthly flows in the Delta, developed in Appendix B – Operation Analysis and Water Quality Modeling, were multiplied by weighted average fish densities near CCWD intakes to derive numbers for each fish species subject to entrainment. Fish densities were also adjusted to account for entrainment/impingement through the intake screen using a weighting factor for vulnerability. Fish species evaluated for entrainment/impingement include delta smelt, splittail, Chinook salmon, striped bass, and steelhead. Larval fish density data were obtained from California Department of Fish and Game (CDFG), 20 millimeter (mm) survey data.[1] Average fish densities for the period 1995 to 2006 were used for this analysis. Juvenile fish data were collected from the California Department of Water Resources fish facility, at the Central Valley Project (average 1995 through 2006 data).

[1] The 20 mm survey data are available at http://www.delta.dfg.ca.gov/data/20mm/

## Fish Screen Exclusion Efficiency

The size of larval fish that are vulnerable to entrainment at a fish screen is a function of the slot opening of the screen mesh and the size (length and depth) of the fish (Weiserg et al., 1987; Zeitoun et al., 1981; Hanson unpublished; Scneeberger and Jude, 1981; Tomljanovich et al., 1978). Several investigations and analyses have been performed to establish the relationship between fish length (for different species) and the effectiveness of various screen mesh openings in physically excluding fish from entrainment. Because the relationship differs for fish species having different general body shapes, the data developed by Weisberg et al. (1987) for larval bay anchovy were selected for use in this analysis due to the general similarity of their body shape to larval delta smelt. Weisberg et al. (1987) estimated that a wedge-wire screen having a 1 mm slot opening would exclude 99.9 percent of the larvae greater than 15 mm in length, and a 2 mm slot screen would exclude 99.5 percent of larvae greater than 15 mm in length (when compared to receiving water densities). Larvae smaller than 15 mm were excluded in lower percentages, which is consistent with the underlying hypothesis that smaller delta smelt larvae would be vulnerable to entrainment while fish greater than 15 mm would be excluded from the diversion by the positive barrier fish screen. Based on results of this analysis, the seasonal distribution of larval delta smelt focused on fish less than 15 mm in length.

## Model Assumptions

For fish roughly greater than 15 to 20 mm (prejuveniles and juveniles), the Old River positive barrier fish screen and (hypothetical) Middle River screen (with a design similar or the same as the Old River screen) would presumably cause a mortality rate of 5 percent due to impingement onto the screens. For larval fish ≤ 15 mm, 100 percent mortality based on fish density estimates is assumed to occur.

These assumptions are based on the life stages of each species known to inhabit the Delta throughout the year, and the knowledge of the size class of the life stages that would be present in the intake area, and vulnerable to entrainment.

For juveniles, fish density data from the Central Valley Project (CVP) fish facility was used. For larval fishes, data from the CDFG 20 mm survey, which captures larval and early juveniles, was used to calculate ≤ 15 mm splittail, striped bass, and delta smelt fish densities (Chinook salmon and steelhead of this size are not caught in this survey). For purposes of calculating larval striped bass, splittail, and delta smelt entrainment losses at the Rock Slough facilities, density that included lengths of all 20 mm survey catch were used because this facility is not screened and would entrain all size classes.

Net change in entrainment and/or impingement losses for each fish species is calculated as follows:

$$NC = RS + OR + MR$$

where

RS = Rock Slough intake entrainment and/or impingement losses
OR = Old River intake entrainment and/or impingement losses
MR = Middle River intake entrainment and/or impingement losses
NC = Net change in entrainment and/or impingement losses (where a negative number represents a net benefit of the proposed operations)

***Middle River Intake Loss Assumptions***

Larval delta smelt: assumes 100 percent mortality (for fish ≤ 15 mm)
Larval striped bass: assumes 100 percent mortality (for fish ≤ 15 mm)
Larval splittail: assumes 100 percent mortality (for fish ≤ 15 mm)
Juvenile delta smelt: assumes 5 percent mortality
Chinook salmon: 5 percent mortality
Splittail: assumes 5 percent mortality
Striped bass: assumes 5 percent mortality
Steelhead: assumes 5 percent mortality

***Old River Intake Loss Assumptions***

Larval Net change in entrainment and/or impingement losses delta smelt: assumes 100 percent mortality (for fish ≤ 15 mm)
Larval striped bass: assumes 100 percent mortality (for fish ≤ 15 mm)
Larval splittail: assumes 100 percent mortality (for fish ≤ 15 mm)
Juvenile delta smelt: assumes 5 percent mortality
Chinook salmon: 5 percent mortality
Splittail: assumes 5 percent mortality
Striped bass: assumes 5 percent mortality
Steelhead: assumes 5 percent mortality

***Rock Slough Intake Loss Assumptions***

The Rock Slough Intake is unscreened. The modeling thus assumes 100 percent mortality for all species as noted below.

Larval delta smelt: assumes 100 percent mortality
Larval striped bass: assumes 100 percent mortality
Larval splittail: assumes 100 percent mortality
Juvenile delta smelt: assumes 100 percent mortality
Chinook salmon: assumes 100 percent mortality
Splittail: assumes 100 percent mortality
Striped bass: assumes 100 percent mortality
Steelhead: assumes 100 percent mortality

## Modeling Results

The greatest impacts to fisheries from operation of CCWD's intakes are associated with the operations of the unscreened Rock Slough intake. Improvements in fisheries conditions could result from reducing the diversions from the unscreened intake, especially during critical fish periods. All three action alternative plans would reduce diversions from the Rock Slough intake compared to the future without-project conditions. Plan 1 would relocate a portion of Rock Slough pumping to the Old River intake or the new Victoria Canal intake. Plan 2 would shift some of the CVP water right diversions at Rock Slough to the Mallard Slough intake. Plan 3 would relocate the Rock Slough intake to a new screened intake on the Middle River.

To assess the impacts of changes in diversions on fish species, modeling results of the 73-year hydrologic record were used to investigate the potential effects of the alternative plans on habitat conditions supporting fish and macroinvertebrates. Comparative analysis between the future without-project conditions and the project alternatives was conducted to assess changes in potential entrainment and impingement losses in the vicinity of CCWD's intakes. Table C-1 summarizes the indices of estimated net fisheries entrainment and/or impingement losses for the Project alternatives compared to the No-Action Plan.

All three plans show significant benefits to fisheries at the Rock Slough intake because of the reduced diversions, and resulting decrease in fish entrainment at the intake. Additional fisheries benefits would also occur as a result of shifting some diversions away from the Old River intake. However, since overall levels of CCWD diversions would remain the same under the three plans, reduced diversions at the Rock Slough and Old River intakes would be compensated for by increased diversions at different locations (i.e., Victoria Canal under Plan 1, Mallard Sough under Plan 2, and Middle River under Plan 3). Therefore, some impacts to fisheries associated with increased diversions would occur around these locations (see Table C-1). Overall, Plan 1 and Plan 3 would result in net benefits to fisheries because of the large reduction of diversions at the Rock Slough intake. Plan 2 would also result in net benefits to most fish species, except delta smelt because larval delta smelt would be adversely impacted by increased diversions from Mallard Slough.

Plan 3 would result in the greatest benefits to fisheries because it would eliminate fish entrainment caused by the operations of the Rock Slough intake (i.e., 100 percent reduction in fish losses compared to the No-Action Plan). Plan 1 would reduce fish impacts at the Rock Slough intake by 21 percent, on average, compared to the No-Action Plan. Plan 2 would reduce fish impacts at the Rock Slough intake by 9 percent, on average, compared to the No-Action Plan.

**Table C-1. Index of Estimated Net Fish Entrainment/Impingement Losses Under Alternative Plans Compared to the No-Action Plan**

| Taxa | Rock Slough | Old River | Mallard Slough | Victoria Canal | Middle River | Overall Net Change |
|---|---|---|---|---|---|---|
| **Plan 1 Compared to the No-Action Plan** | | | | | | |
| Larval delta smelt | -730 | -2,404 | 0 | 1,619 | - | -1,515 |
| Juvenile Chinook salmon | -251 | -61 | 0 | 45 | - | -267 |
| Juvenile delta smelt | -93 | -52 | 0 | 25 | - | -120 |
| Juvenile splittail | -1,669 | -174 | 0 | 175 | - | -1,668 |
| Juvenile steelhead | -13 | -202 | 0 | 2 | - | -213 |
| Juvenile striped bass | -13,541 | -1,422 | 0 | 1,582 | - | -13,381 |
| **Plan 2 Compared to the No-Action Plan** | | | | | | |
| Larval delta smelt | -484 | -876 | 6,811 | - | - | 5,451 |
| Juvenile Chinook salmon | -122 | -13 | 9 | - | - | -126 |
| Juvenile delta smelt | -45 | -4 | 5 | - | - | -44 |
| Juvenile splittail | -527 | -11 | 28 | - | - | -510 |
| Juvenile steelhead | -4 | -1 | 0 | - | - | -5 |
| Juvenile striped bass | -4,171 | -139 | 296 | - | - | -4,014 |
| **Plan 3 Compared to the No-Action Plan** | | | | | | |
| Larval delta smelt | -5,291 | -1,408 | 0 | - | 928 | -5,771 |
| Juvenile Chinook salmon | -1,071 | -47 | 0 | - | 70 | -1,049 |
| Juvenile delta smelt | -570 | -15 | 0 | - | 39 | -546 |
| Juvenile splittail | -25,714 | 113 | 0 | - | 1,054 | -24,547 |
| Juvenile steelhead | -24 | -4 | 0 | - | 3 | -25 |
| Juvenile striped bass | -94,464 | -615 | 0 | - | 4,904 | -90,175 |

Notes:
Negative values denote a net reduction in entrainment/impingement (i.e., fisheries improvement benefit).

**Table C-2. Annual Index of Estimated Net Fish Entrainment/Impingement Losses by Year Type at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| | Wet | Above Normal | Below Normal | Dry | Critical | Long-Term Average |
|---|---|---|---|---|---|---|
| Larval delta smelt | -3,043.5 | -4,950.1 | -6,742.2 | -5,725.1 | -7,237.0 | -5,291.1 |
| Juvenile delta smelt | -385.1 | -547.2 | -624.9 | -671.6 | -712.2 | -569.8 |
| Juvenile Chinook salmon | -728.6 | -1,050.7 | -1,201.4 | -1,188.6 | -1,378.7 | -1,071.1 |
| Juvenile splittail | -15,397.9 | -25,464.8 | -27,957.8 | -32,450.3 | -32,373.1 | -25,713.6 |
| Juvenile steelhead | -15.8 | -18.3 | -33.9 | -23.3 | -32.4 | -24.0 |
| Larval striped bass | -153,803.4 | -252,722.1 | -291,807.1 | -331,650.5 | -336,811.8 | -262,884.1 |
| Juvenile striped bass | -56,429.9 | -91,385.0 | -102,728.4 | -122,521.1 | -116,537.3 | -94,463.9 |

**Table C-3. Annual Index of Estimated Net Fish Entrainment/Impingement Losses by Year Type at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| | Wet | Above Normal | Below Normal | Dry | Critical | Long-Term Average |
|---|---|---|---|---|---|---|
| Larval delta smelt | -1,058.8 | -1,381.7 | -1,892.8 | -78.8 | -3,246.9 | -1,407.9 |
| Juvenile delta smelt | -14.7 | -14.6 | -16.5 | -5.9 | -27.2 | -15.2 |
| Juvenile Chinook salmon | -53.6 | -46.2 | -50.5 | -25.5 | -62.8 | -47.3 |
| Juvenile splittail | 5.9 | 237.0 | 237.0 | 502.7 | -464.9 | 113.4 |
| Juvenile steelhead | -3.8 | -4.4 | -4.1 | -3.1 | -3.9 | -3.8 |
| Larval striped bass | -24,245.4 | -7,304.8 | -19,720.3 | 62,039.9 | -132,186.4 | -19,888.8 |
| Juvenile striped bass | -703.2 | -429.4 | -504.1 | 824.2 | -2,664.6 | -615.2 |

**Table C-4. Annual Index of Estimated Net Fish Entrainment/Impingement Losses by Year Type at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| | Wet | Above Normal | Below Normal | Dry | Critical | Long-Term Average |
|---|---|---|---|---|---|---|
| Larval delta smelt | 373.3 | 698.4 | 813.1 | 1,019.5 | 2,099.7 | 927.6 |
| Juvenile delta smelt | 28.8 | 38.8 | 39.8 | 41.3 | 51.6 | 38.8 |
| Juvenile Chinook salmon | 49.7 | 69.4 | 66.4 | 77.9 | 96.5 | 69.5 |
| Juvenile splittail | 717.1 | 1,007.4 | 1,086.6 | 1,107.1 | 1,571.2 | 1,053.6 |
| Juvenile steelhead | 1.8 | 2.9 | 2.4 | 3.5 | 3.9 | 2.8 |
| Larval striped bass | 113,301.9 | 173,169.5 | 189,480.8 | 192,847.4 | 255,809.9 | 176,973.2 |
| Juvenile striped bass | 3,293.8 | 4,845.0 | 5,208.1 | 5,311.9 | 6,872.9 | 4,904.1 |

**Table C-5. Average Monthly Index of Estimated Net Fish Entrainment/Impingement Losses at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larval delta smelt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -98.1 | -330.8 | -327.7 | -4,534.5 | 0.0 | 0.0 | 0.0 |
| Juvenile delta smelt | -5.9 | -1.3 | -1.0 | -6.1 | -14.6 | -10.7 | -4.9 | -18.5 | -408.5 | -58.8 | -35.0 | -4.7 |
| Juvenile Chinook salmon | -4.0 | -3.8 | -3.7 | -22.1 | -218.5 | -16.7 | -8.3 | -43.3 | -729.4 | -19.6 | -1.5 | -0.3 |
| Juvenile splittail | -1.0 | -0.3 | -0.3 | -6.1 | -17.0 | -16.7 | -8.3 | -100.7 | -24,114.6 | -1,384.4 | -52.5 | -11.7 |
| Juvenile steelhead | 0.0 | -0.1 | -0.2 | -3.9 | -9.0 | -8.8 | -1.5 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| Larval striped bass | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -103.6 | -547.9 | -5,283.1 | -234,843.8 | -22,105.7 | 0.0 | 0.0 |
| Juvenile striped bass | -111.7 | -81.6 | -31.3 | -206.1 | -361.7 | -131.7 | -19.0 | -376.0 | -79,273.3 | -12,192.1 | -1,176.9 | -502.5 |

**Table C-6. Average Monthly Index of Estimated Net Fish Entrainment/Impingement Losses at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larval delta smelt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -412.6 | -1,337.7 | -31.4 | 373.8 | 0.0 | 0.0 | 0.0 |
| Juvenile delta smelt | -1.7 | -0.5 | -1.1 | -1.2 | -2.5 | -1.1 | -0.8 | -0.7 | 4.2 | -4.9 | -4.7 | -0.2 |
| Juvenile Chinook salmon | -1.1 | -1.4 | -4.2 | -4.4 | -37.3 | -1.7 | -1.3 | -1.6 | 7.5 | -1.6 | -0.2 | 0.0 |
| Juvenile splittail | -0.3 | -0.1 | -0.3 | -1.2 | -2.9 | -1.7 | -1.3 | -3.6 | 248.8 | -116.4 | -7.1 | -0.5 |
| Juvenile steelhead | 0.0 | 0.0 | -0.3 | -0.8 | -1.5 | -0.9 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Larval striped bass | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1,930.7 | -2,296.9 | 46,013.9 | -61,675.1 | 0.0 | 0.0 |
| Juvenile striped bass | -32.2 | -29.9 | -35.4 | -41.2 | -61.7 | -13.2 | -3.1 | -13.6 | 818.0 | -1,025.5 | -158.1 | -19.4 |

**Table C-7. Average Monthly Index of Estimated Net Fish Entrainment/Impingement Losses at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larval delta smelt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 469.4 | 145.1 | 5.5 | 307.5 | 0.0 | 0.0 | 0.0 |
| Juvenile delta smelt | 2.7 | 0.8 | 1.1 | 1.4 | 1.7 | 0.6 | 0.0 | 0.2 | 14.7 | 7.1 | 7.6 | 0.8 |
| Juvenile Chinook salmon | 1.8 | 2.5 | 4.0 | 5.1 | 25.7 | 0.9 | 0.1 | 0.5 | 26.2 | 2.4 | 0.3 | 0.0 |
| Juvenile splittail | 0.5 | 0.2 | 0.3 | 1.4 | 2.0 | 0.9 | 0.1 | 1.2 | 865.7 | 168.0 | 11.4 | 1.9 |
| Juvenile steelhead | 0.0 | 0.0 | 0.3 | 0.9 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Larval striped bass | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.3 | 214.9 | 117,132.0 | 59,610.0 | 0.0 | 0.0 |
| Juvenile striped bass | 51.3 | 52.8 | 33.7 | 47.7 | 42.6 | 7.0 | 0.2 | 4.4 | 2,845.9 | 1,479.5 | 255.1 | 83.9 |

**Table C-8. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,738 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,629 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | -238 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,003 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,317 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | -109 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | -238 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | -294 | -1,737 | -5,560 | -5,991 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | -294 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | -2 | -7,133 | -3,689 | -5,376 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -3,087 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -3,087 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,013 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -1,529 | 0 | -5,317 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,578 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,905 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4,901 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | -98 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | -408 | -6,082 | -4,957 | -5,376 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -238 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | -194 | -1,874 | 0 | -5,376 | 0 | 0 | 0 |
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,317 | 0 | 0 | 0 |

**Table C-8. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,011 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | -181 | 0 | 0 | -4,901 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -183 | 0 | 0 | -5,317 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -44 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | -11 | 0 | 0 | -1,995 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -183 | 0 | 0 | -5,317 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -890 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | -104 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | -77 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,819 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | -60 | 0 | 0 | -2,611 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -54 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,691 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,020 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4,901 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | -181 | 0 | 0 | -4,901 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -5,376 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,317 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,009 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,989 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | -3,258 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -294 | -1,801 | -5,621 | -5,991 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -1,523 | 0 | -3,027 | 0 | 0 | 0 |
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -204 | 0 | 0 | -3,087 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,317 | 0 | 0 | 0 |

**Table C-8. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -98 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | -181 | 0 | 0 | -2,611 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,717 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4,901 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -935 | -4,095 | -4,901 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | -238 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | -238 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -1,531 | 0 | -5,991 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | -71 | 0 | 0 | -3,027 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | -5,991 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | -98 | -331 | -328 | -4,534 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -890 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | -408 | -7,133 | -5,621 | -5,991 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | -29 | -45 | -195 | -2,775 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | -44 | -305 | 0 | -4,601 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | -162 | -1,078 | -618 | -4,885 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | -129 | 0 | 0 | -5,596 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | -149 | -422 | -932 | -5,733 | 0 | 0 | 0 |

**Table C-9. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | -89 | -21 | 0 | 0 | 0 | 0 | 0 | 0 | -247 | 0 | -5 | -14 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -484 | -4 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | -33 | -46 | 0 | 0 | 0 | -507 | -177 | -156 | -18 |
| 1925 | D | 0 | 0 | 0 | 0 | -21 | -26 | 0 | 0 | -504 | -115 | -98 | -9 |
| 1926 | D | 0 | 0 | 0 | 0 | -17 | -11 | 0 | 0 | -504 | -115 | -98 | -17 |
| 1927 | W | -19 | 0 | 0 | -12 | -17 | 0 | 0 | 0 | -180 | 0 | -154 | -5 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -479 | 0 | -5 | -8 |
| 1929 | C | 0 | 0 | 0 | 0 | -42 | -12 | 0 | 0 | -540 | -108 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | -29 | -26 | 0 | 0 | -504 | -56 | 0 | -5 |
| 1931 | C | 0 | 0 | 0 | 0 | -61 | -32 | -26 | -313 | -540 | -4 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -11 | 0 | 0 | -504 | -115 | -98 | -11 |
| 1933 | C | 0 | 0 | 0 | 0 | -17 | -32 | 0 | 0 | -540 | -4 | 0 | 0 |
| 1934 | C | -90 | 0 | 0 | -44 | 0 | 0 | 0 | 0 | -540 | -177 | 0 | 0 |
| 1935 | BN | -90 | 0 | 0 | 0 | 0 | 0 | -105 | -208 | -484 | -107 | -43 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | -2 | -22 | 0 | 0 | -278 | -66 | -5 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | -2 | -22 | 0 | 0 | -278 | -61 | -5 | -11 |
| 1938 | W | 0 | 0 | 0 | -33 | 0 | 0 | 0 | 0 | -181 | 0 | -3 | -15 |
| 1939 | D | 0 | 0 | -11 | -10 | -20 | -11 | 0 | 0 | -504 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | -15 | 0 | -22 | 0 | -479 | -103 | 0 | -5 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -142 | 0 | -3 | -13 |
| 1942 | W | 0 | 0 | 0 | 0 | -45 | 0 | 0 | 0 | -172 | 0 | -154 | -7 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -441 | 0 | -154 | -5 |
| 1944 | D | 0 | 0 | 0 | -12 | 0 | -11 | 0 | 0 | -504 | -115 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | -17 | -22 | 0 | 0 | -484 | -107 | 0 | -6 |
| 1946 | BN | 0 | 0 | 0 | -33 | -48 | -11 | 0 | 0 | -484 | -174 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | -16 | 0 | -11 | 0 | 0 | -504 | -177 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | -23 | -59 | -44 | -89 | -279 | -484 | -107 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -26 | 0 | 0 | -504 | -115 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | -35 | -17 | -21 | -28 | 0 | -484 | -107 | -5 | 0 |
| 1951 | AN | -28 | 0 | 0 | -33 | -47 | 0 | 0 | 0 | -479 | 0 | -156 | 0 |

**Table C-9. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1952 | W | 0 | 0 | 0 | 0 | -41 | 0 | 0 | 0 | -181 | 0 | -3 | 0 |
| 1953 | W | 0 | 0 | -9 | -25 | -45 | -20 | 0 | 0 | -441 | 0 | -3 | -7 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -20 | 0 | 0 | -479 | 0 | -5 | -5 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -504 | -29 | 0 | -9 |
| 1956 | W | 0 | 0 | 0 | 0 | -15 | -1 | 0 | 0 | -180 | 0 | -154 | -7 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -20 | 0 | 0 | -479 | -56 | -156 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -80 | 0 | -3 | 0 |
| 1959 | BN | 0 | -14 | 0 | 0 | 0 | -22 | 0 | 0 | -484 | -6 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | -24 | -43 | -11 | 0 | 0 | -504 | -78 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | -13 | 0 | -11 | 0 | 0 | -504 | -166 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | -17 | -8 | 0 | 0 | -484 | -107 | 0 | 0 |
| 1963 | W | 0 | -7 | -29 | 0 | 0 | 0 | 0 | 0 | -164 | 0 | -3 | -8 |
| 1964 | D | 0 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | -504 | -177 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | -17 | -7 | 0 | 0 | -235 | -101 | -59 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -6 | 0 | 0 | -484 | -6 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | -3 | 0 | 0 | 0 | -152 | 0 | -3 | 0 |
| 1968 | BN | 0 | -19 | 0 | 0 | -42 | -22 | 0 | 0 | -484 | -6 | -115 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | -3 | 0 | 0 | 0 | -182 | 0 | -3 | -17 |
| 1970 | W | 0 | -19 | -10 | 0 | 0 | 0 | 0 | 0 | -441 | -167 | -154 | -6 |
| 1971 | W | 0 | 0 | 0 | 0 | -45 | -20 | 0 | 0 | -441 | 0 | -3 | -7 |
| 1972 | BN | 0 | 0 | 0 | -9 | 0 | -22 | 0 | 0 | -484 | -107 | 0 | -4 |
| 1973 | AN | 0 | 0 | 0 | -4 | -48 | 0 | 0 | 0 | -479 | 0 | -5 | -7 |
| 1974 | W | 0 | 0 | 0 | -30 | -42 | 0 | 0 | 0 | -181 | 0 | -154 | 0 |
| 1975 | W | 0 | -10 | 0 | 0 | 0 | 0 | 0 | 0 | -179 | 0 | -154 | 0 |
| 1976 | C | 0 | 0 | -12 | 0 | 0 | -17 | 0 | 0 | -294 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -32 | -26 | -317 | -540 | -4 | 0 | -18 |
| 1978 | AN | 0 | 0 | 0 | 0 | -29 | 0 | -22 | 0 | -273 | -103 | -48 | -12 |
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -22 | 0 | 0 | -278 | -33 | -5 | -5 |
| 1980 | AN | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | -479 | 0 | -5 | -17 |

**Table C-9. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -11 | 0 | 0 | -504 | -133 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | -12 | -17 | -20 | 0 | 0 | -235 | -14 | -3 | -17 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -155 | 0 | -3 | -17 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -441 | 0 | -154 | -6 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -504 | -152 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -14 | -231 | -441 | -101 | -154 | -17 |
| 1987 | D | -27 | 0 | 0 | 0 | -19 | -26 | 0 | 0 | -504 | -115 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | -15 | -17 | 0 | 0 | -540 | -115 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | -73 | -26 | 0 | 0 | -504 | -115 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | -41 | 0 | -17 | 0 | 0 | -540 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -22 | 0 | -540 | 0 | 0 | 0 |
| 1992 | C | -90 | 0 | 0 | 0 | 0 | -17 | 0 | 0 | -540 | -177 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | -29 | -8 | 0 | 0 | -273 | -103 | -61 | -9 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -17 | 0 | 0 | -540 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -6 | -1 | -1 | -6 | -15 | -11 | -5 | -18 | -408 | -59 | -35 | -5 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -80 | 0 | 0 | 0 |
| **Min** | | -90 | -21 | -29 | -44 | -73 | -44 | -105 | -317 | -540 | -177 | -156 | -18 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -1 | -2 | -2 | -5 | -14 | -3 | -1 | -11 | -250 | -18 | -71 | -7 |
| Above Normal | AN | -12 | -2 | 0 | -4 | -17 | -5 | -4 | 0 | -414 | -37 | -44 | -8 |
| Below Normal | BN | -6 | -2 | 0 | -7 | -14 | -18 | -16 | -35 | -440 | -71 | -13 | -2 |
| Dry | D | -2 | 0 | -1 | -5 | -14 | -14 | 0 | 0 | -504 | -111 | -18 | -3 |
| Critical | C | -15 | 0 | -1 | -10 | -15 | -16 | -6 | -52 | -516 | -64 | -13 | -3 |

**Table C-10. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | -59 | -63 | 0 | 0 | 0 | 0 | 0 | 0 | -440 | 0 | 0 | -1 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -865 | -1 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | -120 | -687 | 0 | 0 | 0 | -906 | -59 | -7 | -1 |
| 1925 | D | 0 | 0 | 0 | 0 | -309 | -40 | 0 | 0 | -900 | -38 | -4 | -1 |
| 1926 | D | 0 | 0 | 0 | 0 | -253 | -18 | 0 | 0 | -900 | -38 | -4 | -1 |
| 1927 | W | -12 | 0 | -2 | -43 | -253 | 0 | 0 | 0 | -322 | 0 | -7 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -855 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | -636 | -18 | 0 | 0 | -964 | -36 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | -432 | -40 | 0 | 0 | -900 | -19 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | -915 | -50 | -43 | -734 | -964 | -1 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -18 | 0 | 0 | -900 | -38 | -4 | -1 |
| 1933 | C | 0 | 0 | 0 | 0 | -253 | -50 | 0 | 0 | -964 | -1 | 0 | 0 |
| 1934 | C | -60 | 0 | 0 | -160 | 0 | 0 | 0 | 0 | -964 | -59 | 0 | 0 |
| 1935 | BN | -60 | 0 | 0 | 0 | 0 | 0 | -178 | -487 | -865 | -36 | -2 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | -25 | -35 | 0 | 0 | -496 | -22 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | -32 | -35 | 0 | 0 | -496 | -20 | 0 | -1 |
| 1938 | W | 0 | 0 | 0 | -121 | 0 | 0 | 0 | 0 | -324 | 0 | 0 | -1 |
| 1939 | D | 0 | 0 | -40 | -36 | -297 | -18 | 0 | 0 | -900 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | -222 | 0 | -38 | 0 | -855 | -34 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -254 | 0 | 0 | -1 |
| 1942 | W | 0 | 0 | 0 | 0 | -668 | 0 | 0 | 0 | -306 | 0 | -7 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | -5 | 0 | 0 | 0 | -788 | 0 | -7 | 0 |
| 1944 | D | 0 | 0 | 0 | -45 | 0 | -18 | 0 | 0 | -900 | -38 | 0 | 0 |
| 1945 | BN | 0 | 0 | -2 | 0 | -253 | -35 | 0 | 0 | -865 | -36 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | -121 | -713 | -17 | 0 | 0 | -865 | -58 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | -58 | 0 | -18 | 0 | 0 | -900 | -59 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | -83 | -885 | -69 | -152 | -655 | -865 | -36 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -40 | 0 | 0 | -900 | -38 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | -126 | -253 | -33 | -47 | 0 | -865 | -36 | 0 | 0 |
| 1951 | AN | -19 | 0 | 0 | -121 | -699 | 0 | 0 | 0 | -855 | 0 | -7 | 0 |

**Table C-10. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1952 | W | 0 | 0 | 0 | 0 | -614 | 0 | 0 | 0 | -323 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | -33 | -91 | -668 | -31 | 0 | 0 | -788 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | -5 | -31 | 0 | 0 | -855 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -8 | 0 | 0 | -900 | -10 | 0 | -1 |
| 1956 | W | 0 | 0 | -2 | 0 | -222 | -2 | 0 | 0 | -321 | 0 | -7 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | -5 | -31 | 0 | 0 | -855 | -19 | -7 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -143 | 0 | 0 | 0 |
| 1959 | BN | 0 | -43 | 0 | 0 | 0 | -35 | 0 | 0 | -865 | -2 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | -88 | -638 | -18 | 0 | 0 | -900 | -26 | 0 | 0 |
| 1961 | D | 0 | 0 | -2 | -49 | 0 | -18 | 0 | 0 | -900 | -55 | 0 | 0 |
| 1962 | BN | 0 | 0 | -2 | 0 | -253 | -13 | 0 | 0 | -865 | -36 | 0 | 0 |
| 1963 | W | 0 | -22 | -107 | 0 | 0 | 0 | 0 | 0 | -293 | 0 | 0 | 0 |
| 1964 | D | 0 | -8 | 0 | 0 | 0 | 0 | 0 | 0 | -900 | -59 | 0 | 0 |
| 1965 | W | 0 | 0 | -2 | 0 | -253 | -10 | 0 | 0 | -420 | -34 | -3 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -9 | 0 | 0 | -865 | -2 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | -50 | 0 | 0 | 0 | -272 | 0 | 0 | 0 |
| 1968 | BN | 0 | -57 | 0 | 0 | -630 | -35 | 0 | 0 | -865 | -2 | -5 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | -50 | 0 | 0 | 0 | -325 | 0 | 0 | -1 |
| 1970 | W | 0 | -57 | -37 | 0 | 0 | 0 | 0 | 0 | -788 | -56 | -7 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | -668 | -31 | 0 | 0 | -788 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | -34 | 0 | -35 | 0 | 0 | -865 | -36 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | -14 | -713 | 0 | 0 | 0 | -855 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | -109 | -636 | 0 | 0 | 0 | -323 | 0 | -7 | 0 |
| 1975 | W | 0 | -29 | 0 | 0 | -5 | 0 | 0 | 0 | -320 | 0 | -7 | 0 |
| 1976 | C | 0 | 0 | -42 | 0 | 0 | -27 | 0 | 0 | -524 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -50 | -45 | -742 | -964 | -1 | 0 | -1 |
| 1978 | AN | 0 | 0 | 0 | 0 | -432 | 0 | -38 | 0 | -487 | -34 | -2 | -1 |
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -35 | 0 | 0 | -496 | -11 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | -25 | 0 | 0 | 0 | -855 | 0 | 0 | -1 |

**Table C-10. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -17 | 0 | 0 | -900 | -44 | 0 | 0 |
| 1982 | W | 0 | 0 | -2 | -43 | -253 | -31 | 0 | 0 | -420 | -5 | 0 | -1 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -276 | 0 | 0 | -1 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -788 | 0 | -7 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -900 | -51 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -23 | -541 | -788 | -34 | -7 | -1 |
| 1987 | D | -18 | 0 | 0 | 0 | -290 | -40 | 0 | 0 | -900 | -38 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | -222 | -27 | 0 | 0 | -964 | -38 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | -1,095 | -40 | 0 | 0 | -900 | -38 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | -150 | 0 | -27 | 0 | 0 | -964 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -38 | 0 | -964 | 0 | 0 | 0 |
| 1992 | C | -60 | 0 | 0 | 0 | 0 | -27 | 0 | 0 | -964 | -59 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | -432 | -12 | 0 | 0 | -487 | -34 | -3 | -1 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -27 | 0 | 0 | -964 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -4 | -4 | -4 | -22 | -219 | -17 | -8 | -43 | -729 | -20 | -2 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -143 | 0 | 0 | 0 |
| **Min** | | -60 | -63 | -107 | -160 | -1,095 | -69 | -178 | -742 | -964 | -59 | -7 | -1 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -1 | -5 | -9 | -19 | -207 | -5 | -1 | -26 | -446 | -6 | -3 | 0 |
| Above Normal | AN | -8 | -6 | 0 | -14 | -253 | -7 | -8 | 0 | -740 | -12 | -2 | 0 |
| Below Normal | BN | -4 | -7 | 0 | -26 | -217 | -27 | -27 | -82 | -786 | -24 | -1 | 0 |
| Dry | D | -1 | -1 | -3 | -17 | -207 | -22 | 0 | 0 | -900 | -37 | -1 | 0 |
| Critical | C | -10 | 0 | -4 | -36 | -226 | -25 | -11 | -123 | -922 | -21 | -1 | 0 |

**Table C-11. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | -15 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | -14,560 | -11 | -7 | -35 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -28,590 | -106 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | -33 | -53 | 0 | 0 | 0 | -29,936 | -4,164 | -235 | -44 |
| 1925 | D | 0 | 0 | 0 | 0 | -24 | -40 | 0 | 0 | -29,761 | -2,708 | -146 | -23 |
| 1926 | D | 0 | 0 | 0 | 0 | -20 | -18 | 0 | 0 | -29,761 | -2,708 | -146 | -41 |
| 1927 | W | -3 | 0 | 0 | -12 | -20 | 0 | 0 | 0 | -10,652 | 0 | -232 | -13 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -28,275 | -11 | -7 | -20 |
| 1929 | C | 0 | 0 | 0 | 0 | -49 | -18 | 0 | 0 | -31,863 | -2,542 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | -34 | -40 | 0 | 0 | -29,761 | -1,321 | 0 | -12 |
| 1931 | C | 0 | 0 | 0 | 0 | -71 | -50 | -43 | -1,709 | -31,863 | -98 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -18 | 0 | 0 | -29,761 | -2,708 | -146 | -28 |
| 1933 | C | 0 | 0 | 0 | 0 | -20 | -50 | 0 | 0 | -31,863 | -98 | 0 | 0 |
| 1934 | C | -15 | 0 | 0 | -44 | 0 | 0 | 0 | 0 | -31,863 | -4,164 | 0 | 0 |
| 1935 | BN | -15 | 0 | 0 | 0 | 0 | 0 | -178 | -1,134 | -28,590 | -2,529 | -64 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | -2 | -35 | 0 | 0 | -16,414 | -1,548 | -7 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | -2 | -35 | 0 | 0 | -16,414 | -1,440 | -7 | -26 |
| 1938 | W | 0 | 0 | 0 | -34 | 0 | 0 | 0 | 0 | -10,707 | 0 | -5 | -38 |
| 1939 | D | 0 | 0 | -3 | -10 | -23 | -18 | 0 | 0 | -29,761 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | -17 | 0 | -38 | 0 | -28,275 | -2,434 | 0 | -13 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -8,393 | 0 | -5 | -32 |
| 1942 | W | 0 | 0 | 0 | 0 | -52 | 0 | 0 | 0 | -10,132 | 0 | -232 | -17 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -26,063 | 0 | -232 | -12 |
| 1944 | D | 0 | 0 | 0 | -12 | 0 | -18 | 0 | 0 | -29,761 | -2,708 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | -20 | -35 | 0 | 0 | -28,590 | -2,529 | 0 | -16 |
| 1946 | BN | 0 | 0 | 0 | -34 | -55 | -17 | 0 | 0 | -28,590 | -4,091 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | -16 | 0 | -18 | 0 | 0 | -29,761 | -4,164 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | -23 | -69 | -69 | -152 | -1,523 | -28,590 | -2,529 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -40 | 0 | 0 | -29,761 | -2,708 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | -35 | -20 | -33 | -47 | 0 | -28,590 | -2,529 | -8 | 0 |
| 1951 | AN | -5 | 0 | 0 | -34 | -54 | 0 | 0 | 0 | -28,275 | -11 | -234 | 0 |

**Table C-11. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1952 | W | 0 | 0 | 0 | 0 | -48 | 0 | 0 | 0 | -10,693 | 0 | -5 | 0 |
| 1953 | W | 0 | 0 | -3 | -25 | -52 | -31 | 0 | 0 | -26,063 | 0 | -5 | -17 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -31 | 0 | 0 | -28,275 | -11 | -7 | -13 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -8 | 0 | 0 | -29,761 | -682 | 0 | -23 |
| 1956 | W | 0 | 0 | 0 | 0 | -17 | -2 | 0 | 0 | -10,607 | 0 | -232 | -18 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -31 | 0 | 0 | -28,275 | -1,329 | -234 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4,731 | 0 | -5 | 0 |
| 1959 | BN | 0 | -4 | 0 | 0 | 0 | -35 | 0 | 0 | -28,590 | -147 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | -24 | -50 | -18 | 0 | 0 | -29,761 | -1,842 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | -14 | 0 | -18 | 0 | 0 | -29,761 | -3,920 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | -20 | -13 | 0 | 0 | -28,590 | -2,529 | 0 | 0 |
| 1963 | W | 0 | -2 | -8 | 0 | 0 | 0 | 0 | 0 | -9,674 | 0 | -5 | -20 |
| 1964 | D | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -29,761 | -4,164 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | -20 | -10 | 0 | 0 | -13,888 | -2,376 | -88 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -9 | 0 | 0 | -28,590 | -141 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | -4 | 0 | 0 | 0 | -8,992 | 0 | -5 | 0 |
| 1968 | BN | 0 | -5 | 0 | 0 | -49 | -35 | 0 | 0 | -28,590 | -140 | -173 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | -4 | 0 | 0 | 0 | -10,744 | 0 | -5 | -42 |
| 1970 | W | 0 | -5 | -3 | 0 | 0 | 0 | 0 | 0 | -26,063 | -3,938 | -232 | -14 |
| 1971 | W | 0 | 0 | 0 | 0 | -52 | -31 | 0 | 0 | -26,063 | 0 | -5 | -17 |
| 1972 | BN | 0 | 0 | 0 | -10 | 0 | -35 | 0 | 0 | -28,590 | -2,529 | 0 | -10 |
| 1973 | AN | 0 | 0 | 0 | -4 | -55 | 0 | 0 | 0 | -28,275 | -11 | -7 | -17 |
| 1974 | W | 0 | 0 | 0 | -30 | -49 | 0 | 0 | 0 | -10,686 | 0 | -232 | 0 |
| 1975 | W | 0 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | -10,575 | 0 | -232 | 0 |
| 1976 | C | 0 | 0 | -3 | 0 | 0 | -27 | 0 | 0 | -17,327 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -50 | -45 | -1,727 | -31,863 | -98 | 0 | -44 |
| 1978 | AN | 0 | 0 | 0 | 0 | -34 | 0 | -38 | 0 | -16,100 | -2,434 | -71 | -30 |
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -35 | 0 | 0 | -16,414 | -781 | -7 | -13 |
| 1980 | AN | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | -28,275 | -4 | -7 | -43 |

**Table C-11. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -17 | 0 | 0 | -29,761 | -3,139 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | -12 | -20 | -31 | 0 | 0 | -13,888 | -322 | -5 | -42 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -9,134 | 0 | -5 | -42 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -26,063 | 0 | -232 | -14 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -29,761 | -3,576 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -23 | -1,258 | -26,063 | -2,376 | -232 | -42 |
| 1987 | D | -4 | 0 | 0 | 0 | -23 | -40 | 0 | 0 | -29,761 | -2,708 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | -17 | -27 | 0 | 0 | -31,863 | -2,701 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | -85 | -40 | 0 | 0 | -29,761 | -2,708 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | -42 | 0 | -27 | 0 | 0 | -31,863 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -38 | 0 | -31,863 | 0 | 0 | 0 |
| 1992 | C | -15 | 0 | 0 | 0 | 0 | -27 | 0 | 0 | -31,863 | -4,164 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | -34 | -12 | 0 | 0 | -16,100 | -2,434 | -91 | -21 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -27 | 0 | 0 | -31,863 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -1 | 0 | 0 | -6 | -17 | -17 | -8 | -101 | -24,115 | -1,384 | -53 | -12 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4,731 | 0 | 0 | 0 |
| **Min** | | -15 | -6 | -8 | -44 | -85 | -69 | -178 | -1,727 | -31,863 | -4,164 | -235 | -44 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | -1 | -5 | -16 | -5 | -1 | -60 | -14,756 | -429 | -106 | -18 |
| Above Normal | AN | -2 | -1 | 0 | -4 | -20 | -7 | -8 | 0 | -24,469 | -869 | -67 | -19 |
| Below Normal | BN | -1 | -1 | 0 | -7 | -17 | -27 | -27 | -190 | -25,981 | -1,683 | -19 | -5 |
| Dry | D | 0 | 0 | 0 | -5 | -16 | -22 | 0 | 0 | -29,761 | -2,610 | -27 | -8 |
| Critical | C | -3 | 0 | 0 | -10 | -18 | -25 | -11 | -286 | -30,491 | -1,502 | -20 | -7 |

**Table C-12. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | -21 | -28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | -13 | -21 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | -10 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | -8 | -10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | -26 | -10 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | -18 | -21 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | -38 | -26 | -8 | -7 | 0 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | -10 | -26 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | -28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -32 | -5 | 0 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | -1 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | -1 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | -22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | -3 | -6 | -12 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | -9 | 0 | -7 | 0 | 0 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | -28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | -8 | 0 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | -10 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | -22 | -29 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | -10 | 0 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | -15 | -37 | -36 | -27 | -7 | 0 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -21 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | -22 | -10 | -17 | -8 | 0 | 0 | 0 | 0 | 0 |

**Table C-12. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | -22 | -29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | -25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | -2 | -16 | -28 | -16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | -9 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | 0 | -1 | 0 | 0 | 0 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | -16 | -26 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | -9 | 0 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | -10 | -7 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | -7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | -10 | -5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1968 | BN | 0 | -1 | 0 | 0 | -26 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | -28 | -16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | -6 | 0 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | -3 | -29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | -20 | -26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1975 | W | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | -3 | 0 | 0 | -14 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -26 | -8 | -7 | 0 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | -18 | 0 | -7 | 0 | 0 | 0 | 0 | 0 |

**Table C-12. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | -8 | -10 | -16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -4 | -5 | 0 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | -12 | -21 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | -9 | -14 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | -45 | -21 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | -27 | 0 | -14 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -7 | 0 | 0 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | -14 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | -18 | -6 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -14 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | -4 | -9 | -9 | -1 | 0 | 0 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Min** | | 0 | -1 | -7 | -28 | -45 | -36 | -32 | -7 | 0 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | -1 | -3 | -9 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | -2 | -10 | -4 | -1 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | -5 | -9 | -14 | -5 | -1 | 0 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | -3 | -9 | -11 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | -6 | -9 | -13 | -2 | -1 | 0 | 0 | 0 | 0 |

**Table C-13. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -141,799 | -176 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -278,424 | -1,690 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -291,538 | -66,489 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | -251 | 0 | -1 | -289,836 | -43,235 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | 0 | -289,836 | -43,235 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -103,733 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -275,365 | -176 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | -115 | 0 | 0 | -310,302 | -40,586 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | -251 | 0 | -1 | -289,836 | -21,092 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | -310 | -2,877 | -89,632 | -310,302 | -1,571 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | -1 | -289,836 | -43,235 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | -310 | 0 | 0 | -310,302 | -1,571 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -310,302 | -66,489 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | -2 | -11,815 | -59,469 | -278,424 | -40,382 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -159,853 | -24,717 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -159,853 | -22,994 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -104,270 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | 0 | -289,836 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -2,533 | -1 | -275,365 | -38,867 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -81,733 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -98,669 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -253,819 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | -1 | -289,836 | -43,235 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -278,424 | -40,382 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | -103 | 0 | -1 | -278,424 | -65,315 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | -1 | -289,836 | -66,489 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | -430 | -10,074 | -79,902 | -278,424 | -40,382 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -251 | 0 | -1 | -289,836 | -43,235 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | -205 | -3,104 | -1 | -278,424 | -40,382 | 0 | 0 |

**Table C-13. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -275,365 | -176 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -104,138 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | -191 | 0 | -1 | -253,819 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -194 | 0 | 0 | -275,365 | -176 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -47 | 0 | -1 | -289,836 | -10,896 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | -12 | 0 | -1 | -103,299 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -194 | 0 | -1 | -275,365 | -21,220 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -46,071 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -278,424 | -2,344 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | -1 | -289,836 | -29,413 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | -110 | 0 | 0 | -289,836 | -62,596 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | -81 | 0 | -1 | -278,424 | -40,382 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -94,215 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -289,836 | -66,489 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | -64 | 0 | 0 | -135,247 | -37,945 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -57 | 0 | -1 | -278,424 | -2,258 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -87,570 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -278,424 | -2,241 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -104,630 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -253,819 | -62,878 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | -191 | 0 | -1 | -253,819 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -278,424 | -40,382 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -275,365 | -176 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -104,072 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -102,986 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | -169 | 0 | -1 | -168,745 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -310 | -2,984 | -90,620 | -310,302 | -1,571 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -2,523 | -1 | -156,793 | -38,867 | 0 | 0 |

**Table C-13. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -215 | 0 | -1 | -159,853 | -12,469 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -275,365 | -58 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -103 | 0 | -1 | -289,836 | -50,119 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | -191 | 0 | -1 | -135,247 | -5,142 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -88,948 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -253,819 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -289,836 | -57,105 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -1,549 | -66,012 | -253,819 | -37,945 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | -251 | 0 | 0 | -289,836 | -43,235 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | -169 | 0 | -1 | -310,302 | -43,126 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | -251 | 0 | 0 | -289,836 | -43,235 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | -169 | 0 | -1 | -310,302 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -2,536 | -1 | -310,302 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | -169 | 0 | 0 | -310,302 | -66,489 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | -75 | 0 | -1 | -156,793 | -38,867 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -169 | 0 | 0 | -310,302 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | -104 | -548 | -5,283 | -234,844 | -22,106 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -46,071 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | -430 | -11,815 | -90,620 | -310,302 | -66,489 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | -31 | -74 | -3,144 | -143,702 | -6,853 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | -46 | -506 | 0 | -238,294 | -13,876 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | -170 | -1,785 | -9,956 | -253,016 | -26,880 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | -136 | 0 | 0 | -289,836 | -41,678 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | -157 | -700 | -15,021 | -296,942 | -23,991 | 0 | 0 |

**Table C-14. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | -1,668 | -1,337 | 0 | 0 | 0 | 0 | 0 | 0 | -47,865 | -97 | -165 | -1,489 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -93,984 | -932 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | -1,120 | -1,138 | 0 | 0 | 0 | -98,411 | -36,671 | -5,254 | -1,905 |
| 1925 | D | 0 | 0 | 0 | 0 | -512 | -319 | 0 | 0 | -97,836 | -23,845 | -3,281 | -1,005 |
| 1926 | D | 0 | 0 | 0 | 0 | -419 | -140 | 0 | 0 | -97,836 | -23,845 | -3,281 | -1,769 |
| 1927 | W | -353 | 0 | -13 | -405 | -419 | 0 | 0 | 0 | -35,016 | 0 | -5,190 | -544 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -92,951 | -97 | -165 | -857 |
| 1929 | C | 0 | 0 | 0 | 0 | -1,052 | -146 | 0 | 0 | -104,745 | -22,384 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | -715 | -319 | 0 | 0 | -97,836 | -11,633 | 0 | -508 |
| 1931 | C | 0 | 0 | 0 | 0 | -1,516 | -395 | -100 | -6,378 | -104,745 | -866 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | -140 | 0 | 0 | -97,836 | -23,845 | -3,281 | -1,200 |
| 1933 | C | 0 | 0 | 0 | 0 | -419 | -395 | 0 | 0 | -104,745 | -866 | 0 | 0 |
| 1934 | C | -1,699 | 0 | 0 | -1,490 | 0 | 0 | 0 | 0 | -104,745 | -36,671 | 0 | 0 |
| 1935 | BN | -1,699 | 0 | 0 | 0 | 0 | -2 | -409 | -4,232 | -93,984 | -22,272 | -1,435 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | -42 | -274 | 0 | 0 | -53,960 | -13,632 | -161 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | -52 | -274 | 0 | 0 | -53,960 | -12,682 | -161 | -1,131 |
| 1938 | W | 0 | 0 | 0 | -1,128 | 0 | 0 | 0 | 0 | -35,197 | 0 | -109 | -1,641 |
| 1939 | D | 0 | 0 | -339 | -338 | -492 | -140 | 0 | 0 | -97,836 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | -367 | 0 | -88 | 0 | -92,951 | -21,437 | 0 | -540 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -27,590 | 0 | -109 | -1,362 |
| 1942 | W | 0 | 0 | 0 | 0 | -1,107 | 0 | 0 | 0 | -33,306 | 0 | -5,190 | -752 |
| 1943 | W | 0 | 0 | 0 | 0 | -9 | 0 | 0 | 0 | -85,678 | 0 | -5,190 | -535 |
| 1944 | D | 0 | 0 | 0 | -419 | 0 | -140 | 0 | 0 | -97,836 | -23,845 | 0 | 0 |
| 1945 | BN | 0 | 0 | -13 | 0 | -419 | -274 | 0 | 0 | -93,984 | -22,272 | 0 | -684 |
| 1946 | BN | 0 | 0 | 0 | -1,128 | -1,180 | -131 | 0 | 0 | -93,984 | -36,023 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | -543 | 0 | -140 | 0 | 0 | -97,836 | -36,671 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | -775 | -1,464 | -547 | -348 | -5,686 | -93,984 | -22,272 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -319 | 0 | 0 | -97,836 | -23,845 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | -1,175 | -419 | -261 | -107 | 0 | -93,984 | -22,272 | -182 | 0 |

**Table C-14. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | -527 | 0 | 0 | -1,128 | -1,157 | 0 | 0 | 0 | -92,951 | -97 | -5,246 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | -1,016 | 0 | 0 | 0 | -35,153 | 0 | -109 | 0 |
| 1953 | W | 0 | 0 | -280 | -851 | -1,107 | -243 | 0 | 0 | -85,678 | 0 | -107 | -715 |
| 1954 | AN | 0 | 0 | 0 | 0 | -9 | -246 | 0 | 0 | -92,951 | -97 | -164 | -567 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -59 | 0 | 0 | -97,836 | -6,010 | 0 | -983 |
| 1956 | W | 0 | 0 | -13 | 0 | -367 | -15 | 0 | 0 | -34,869 | 0 | -5,190 | -760 |
| 1957 | AN | 0 | 0 | 0 | 0 | -9 | -246 | 0 | 0 | -92,951 | -11,703 | -5,246 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -15,552 | 0 | -107 | 0 |
| 1959 | BN | 0 | -915 | 0 | 0 | 0 | -274 | 0 | 0 | -93,984 | -1,293 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | -816 | -1,057 | -140 | 0 | 0 | -97,836 | -16,222 | 0 | 0 |
| 1961 | D | 0 | 0 | -13 | -455 | 0 | -140 | 0 | 0 | -97,836 | -34,524 | 0 | 0 |
| 1962 | BN | 0 | 0 | -13 | 0 | -419 | -103 | 0 | 0 | -93,984 | -22,272 | 0 | 0 |
| 1963 | W | 0 | -465 | -906 | 0 | 0 | 0 | 0 | 0 | -31,803 | 0 | -109 | -883 |
| 1964 | D | 0 | -175 | 0 | 0 | 0 | 0 | 0 | 0 | -97,836 | -36,671 | 0 | 0 |
| 1965 | W | 0 | 0 | -13 | 0 | -419 | -81 | 0 | 0 | -45,654 | -20,928 | -1,981 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -72 | 0 | 0 | -93,984 | -1,245 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | -83 | 0 | 0 | 0 | -29,560 | 0 | -109 | 0 |
| 1968 | BN | 0 | -1,224 | 0 | 0 | -1,043 | -274 | 0 | 0 | -93,984 | -1,236 | -3,881 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | -83 | 0 | 0 | 0 | -35,319 | 0 | -109 | -1,793 |
| 1970 | W | 0 | -1,224 | -310 | 0 | 0 | 0 | 0 | 0 | -85,678 | -34,679 | -5,190 | -611 |
| 1971 | W | 0 | 0 | 0 | 0 | -1,107 | -243 | 0 | 0 | -85,678 | 0 | -109 | -730 |
| 1972 | BN | 0 | 0 | 0 | -320 | 0 | -274 | 0 | 0 | -93,984 | -22,272 | 0 | -448 |
| 1973 | AN | 0 | 0 | 0 | -133 | -1,180 | 0 | 0 | 0 | -92,951 | -97 | -165 | -731 |
| 1974 | W | 0 | 0 | 0 | -1,021 | -1,052 | 0 | 0 | 0 | -35,130 | 0 | -5,190 | 0 |
| 1975 | W | 0 | -615 | 0 | 0 | -9 | 0 | 0 | 0 | -34,764 | 0 | -5,190 | 0 |
| 1976 | C | 0 | 0 | -359 | 0 | 0 | -215 | 0 | 0 | -56,961 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | -395 | -103 | -6,449 | -104,745 | -866 | 0 | -1,905 |
| 1978 | AN | 0 | 0 | 0 | 0 | -715 | 0 | -87 | 0 | -52,927 | -21,437 | -1,597 | -1,290 |

**Table C-14. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Rock Slough Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -274 | 0 | 0 | -53,960 | -6,877 | -161 | -576 |
| 1980 | AN | 0 | 0 | 0 | 0 | -42 | 0 | 0 | 0 | -92,951 | -32 | -165 | -1,843 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -131 | 0 | 0 | -97,836 | -27,642 | 0 | 0 |
| 1982 | W | 0 | 0 | -13 | -405 | -419 | -243 | 0 | 0 | -45,654 | -2,836 | -109 | -1,793 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -30,025 | 0 | -107 | -1,793 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -85,678 | 0 | -5,190 | -622 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -97,836 | -31,495 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -54 | -4,698 | -85,678 | -20,928 | -5,190 | -1,793 |
| 1987 | D | -508 | 0 | 0 | 0 | -481 | -319 | 0 | 0 | -97,836 | -23,845 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | -367 | -215 | 0 | 0 | -104,745 | -23,786 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | -1,812 | -319 | 0 | 0 | -97,836 | -23,845 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | -1,399 | 0 | -215 | 0 | 0 | -104,745 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -88 | 0 | -104,745 | 0 | 0 | 0 |
| 1992 | C | -1,699 | 0 | 0 | 0 | 0 | -215 | 0 | 0 | -104,745 | -36,671 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | -715 | -95 | 0 | 0 | -52,927 | -21,437 | -2,042 | -919 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -215 | 0 | 0 | -104,745 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -112 | -82 | -31 | -206 | -362 | -132 | -19 | -376 | -79,273 | -12,192 | -1,177 | -502 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -15,552 | 0 | 0 | 0 |
| **Min** | | -1,699 | -1,337 | -906 | -1,490 | -1,812 | -547 | -409 | -6,449 | -104,745 | -36,671 | -5,254 | -1,905 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -17 | -110 | -74 | -181 | -343 | -39 | -3 | -224 | -48,508 | -3,780 | -2,375 | -778 |
| Above Normal | AN | -219 | -134 | 0 | -126 | -419 | -59 | -17 | 0 | -80,438 | -7,653 | -1,496 | -824 |
| Below Normal | BN | -121 | -153 | -2 | -243 | -360 | -217 | -62 | -708 | -85,407 | -14,825 | -427 | -203 |
| Dry | D | -32 | -11 | -22 | -161 | -343 | -173 | 0 | 0 | -97,836 | -22,987 | -615 | -342 |
| Critical | C | -283 | 0 | -30 | -334 | -374 | -200 | -24 | -1,069 | -100,235 | -13,232 | -438 | -317 |

**Table C-15. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 922 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | -359 | 0 | -95 | 0 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | 1,017 | -3,842 | -54 | 914 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | -85 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | -692 | 0 | 0 | 1,031 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | -687 | 0 | 0 | -1,524 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | -618 | -9,440 | 98 | 0 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | 0 | -4,389 | -70 | 914 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | -504 | 0 | 0 | -1,524 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | -865 | -10,048 | -2 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 933 | -867 | 914 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | -702 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | -1,297 | 0 | 0 | -914 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,153 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | -364 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | -668 | -9,474 | 0 | 914 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | -209 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | -1,042 | 0 | 0 | 1,151 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | -610 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | -707 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | -528 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | -527 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 144 | -11,887 | -498 | 914 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | -306 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | -1,420 | -11,611 | 0 | 914 | 0 | 0 | 0 |

**Table C-15. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,032 | 0 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | -940 | 0 | 0 | -1,154 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | 379 | 0 | 0 | 1,157 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | -816 | 0 | 0 | 1,036 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | -1,105 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | -731 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | -742 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | -463 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | 428 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | -865 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | -710 | -4,140 | -96 | 914 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | -498 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | -740 | -104 | -102 | 0 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | -679 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | -378 | 0 | 0 | -1,282 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | 428 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | -687 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,133 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | -18 | 0 | 0 | 1,148 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | -646 | -987 | -95 | 914 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,031 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | -714 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | -865 | 0 | -289 | 0 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 10 | 0 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | -651 | -4,165 | 95 | -914 | 0 | 0 | 0 |

**Table C-15. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | -718 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | -651 | 0 | 0 | 1,049 | 0 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | -274 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | -1,193 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,135 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | -498 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | -1,486 | -16,568 | -200 | 914 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | -1,016 | 0 | 0 | 914 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | -1,103 | 0 | 0 | -1,524 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | 0 | -2,417 | -74 | 914 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | 0 | -5,560 | -50 | -701 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | -617 | -1,623 | 0 | 0 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | 0 | -642 | 0 | -364 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | -370 | -1,776 | 0 | 0 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | -155 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | -413 | -1,338 | -31 | 374 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 1,017 | 933 | 98 | 1,157 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | -1,486 | -16,568 | -867 | -1,524 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | -396 | -794 | -14 | 145 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | -459 | -1,542 | 9 | 609 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | -458 | -1,978 | -111 | 654 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | -315 | -665 | -12 | 914 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | -481 | -2,269 | -27 | -470 | 0 | 0 | 0 |

**Table C-16. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 2 | 1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1923 | BN | -1 | 0 | -3 | 0 | -2 | 0 | 0 | 0 | 10 | -8 | -5 | 0 |
| 1924 | C | -1 | -1 | 0 | 0 | 0 | -1 | 0 | -2 | 0 | 0 | 0 | 0 |
| 1925 | D | -5 | -1 | 0 | -2 | -2 | 3 | -2 | -1 | 10 | -3 | -8 | 0 |
| 1926 | D | -1 | 0 | -1 | -2 | -2 | 0 | 0 | 0 | 10 | -4 | -8 | 0 |
| 1927 | W | 0 | 0 | -2 | -4 | -6 | 0 | 0 | 0 | 0 | -8 | 0 | 0 |
| 1928 | AN | -1 | 0 | -2 | -1 | -6 | -2 | 0 | 0 | 12 | -8 | -8 | 0 |
| 1929 | C | -1 | 0 | 0 | -1 | 0 | -2 | 0 | 0 | -17 | -9 | -3 | 0 |
| 1930 | D | 0 | -1 | 0 | -2 | -2 | 0 | 0 | 0 | 10 | -5 | -3 | 0 |
| 1931 | C | -4 | -1 | -1 | -2 | 0 | -2 | -6 | 2 | 0 | -9 | -8 | -1 |
| 1932 | D | -5 | -1 | -1 | 0 | 0 | 0 | -3 | -1 | 10 | -3 | -8 | 1 |
| 1933 | C | -1 | 0 | 1 | -2 | -6 | -1 | 0 | 0 | -17 | -9 | -5 | 0 |
| 1934 | C | 0 | -1 | -1 | 0 | -3 | -2 | -6 | 0 | 0 | 0 | -8 | -1 |
| 1935 | BN | 0 | -1 | -1 | -2 | -1 | 0 | 1 | -18 | 10 | -3 | -6 | 0 |
| 1936 | BN | -1 | -1 | 0 | -2 | -6 | -2 | 0 | 0 | 0 | -8 | -8 | 0 |
| 1937 | BN | -1 | 0 | 0 | -1 | -6 | -3 | 0 | 0 | -10 | -8 | -8 | 0 |
| 1938 | W | -1 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | -13 | -8 | -8 | 0 |
| 1939 | D | -2 | -2 | 0 | 0 | 0 | -1 | 0 | 0 | 10 | -8 | -3 | 0 |
| 1940 | AN | -1 | 0 | -1 | -2 | 0 | -2 | -6 | 0 | 10 | -7 | -7 | 0 |
| 1941 | W | -2 | -1 | -2 | 0 | -6 | -1 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1942 | W | -1 | 0 | -2 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | -2 | 0 | -1 | -1 | -6 | -3 | 0 | 0 | 13 | 0 | 0 | 0 |
| 1944 | D | -1 | 0 | -1 | 0 | -2 | -2 | 0 | 0 | 10 | -7 | -3 | 0 |
| 1945 | BN | -1 | 0 | -2 | -2 | -6 | -2 | 0 | 0 | 10 | -8 | -7 | 0 |
| 1946 | BN | -1 | -1 | 0 | 2 | -1 | -1 | 0 | 0 | 10 | 0 | -3 | 0 |
| 1947 | D | -3 | 0 | -3 | 0 | -2 | -1 | 0 | 0 | 10 | -5 | -2 | 0 |
| 1948 | BN | -1 | 0 | -1 | 0 | 0 | 0 | -7 | -11 | 10 | -4 | -5 | 0 |
| 1949 | D | -3 | -1 | -1 | -1 | 0 | -1 | 0 | 0 | 10 | -7 | -5 | 0 |
| 1950 | BN | -1 | -1 | 0 | 0 | -5 | -4 | -7 | 0 | 10 | -8 | -8 | 0 |

**Table C-16. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | -1 | -2 | -2 | 0 | 0 | 0 | 0 | 12 | -8 | 0 | 0 |
| 1952 | W | -1 | 0 | -2 | 0 | -2 | -2 | 0 | 0 | -13 | 0 | -8 | -1 |
| 1953 | W | -6 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 13 | -8 | -8 | 0 |
| 1954 | AN | -1 | 0 | -2 | -1 | -6 | -2 | 0 | 0 | 12 | -8 | -8 | 0 |
| 1955 | D | -1 | 0 | -3 | -2 | -6 | -3 | 0 | 0 | 10 | -7 | -7 | 0 |
| 1956 | W | -1 | 0 | -2 | -2 | -6 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | -1 | 0 | -1 | -1 | -6 | -2 | 0 | 0 | 10 | -8 | 0 | 0 |
| 1958 | W | -1 | 0 | -3 | -2 | -4 | -1 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1959 | BN | -4 | 0 | -1 | -1 | -3 | 1 | 0 | 0 | 10 | -8 | -5 | 0 |
| 1960 | D | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | -5 | -4 | -1 |
| 1961 | D | -1 | 0 | -2 | 0 | -1 | -2 | 0 | 0 | 10 | 2 | -4 | -1 |
| 1962 | BN | -5 | -1 | -2 | -2 | -6 | -2 | -2 | -2 | 10 | -8 | -3 | 0 |
| 1963 | W | -4 | -1 | 0 | -2 | -4 | 0 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1964 | D | -1 | 0 | -1 | -4 | -3 | -1 | 0 | 0 | 10 | 0 | -1 | 0 |
| 1965 | W | -1 | 0 | -2 | 0 | -2 | -2 | 0 | -2 | 0 | -8 | -8 | 0 |
| 1966 | BN | -1 | 0 | -2 | -4 | 2 | -2 | 0 | 0 | 10 | -8 | -4 | 0 |
| 1967 | W | -2 | 0 | -3 | -2 | -4 | -1 | 0 | 0 | -14 | 0 | -8 | -1 |
| 1968 | BN | -1 | 0 | -1 | -1 | 2 | 1 | 0 | 0 | 10 | -8 | 0 | 0 |
| 1969 | W | -1 | 0 | -2 | -2 | -4 | -2 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1970 | W | -3 | 0 | 1 | 0 | -2 | 0 | 0 | 0 | 13 | 0 | 0 | 0 |
| 1971 | W | -1 | 0 | -2 | -1 | -1 | 0 | 0 | 0 | 13 | -8 | -8 | 0 |
| 1972 | BN | -1 | 0 | -1 | 0 | -2 | -2 | -1 | -2 | 10 | -8 | -5 | 0 |
| 1973 | AN | -4 | -1 | -1 | -3 | -1 | 0 | 0 | 0 | 12 | -8 | -8 | 0 |
| 1974 | W | -1 | 0 | -3 | -1 | 1 | 0 | 0 | 0 | 0 | -8 | 0 | 0 |
| 1975 | W | -3 | 0 | -1 | -1 | -6 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | -3 | -1 | 0 | 0 | -1 | -2 | 0 | -6 | 0 | -6 | -8 | -1 |
| 1977 | C | -5 | -1 | -1 | -2 | -4 | 0 | 0 | 0 | 0 | -9 | -8 | 0 |
| 1978 | AN | -5 | -1 | -1 | -2 | -2 | -2 | -2 | 2 | -10 | -3 | -5 | 0 |

**Table C-16. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | -1 | 0 | -1 | -1 | -6 | -2 | 0 | 0 | 0 | -8 | -8 | 0 |
| 1980 | AN | -1 | 0 | -3 | -2 | -6 | -2 | 0 | 0 | 12 | -8 | -8 | 0 |
| 1981 | D | -2 | 0 | -1 | -1 | -6 | -1 | 0 | 0 | 10 | 2 | -2 | 0 |
| 1982 | W | -1 | 0 | -2 | -4 | -6 | -3 | 0 | 0 | 0 | 0 | -8 | 0 |
| 1983 | W | -4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1984 | W | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 13 | -8 | 0 | 0 |
| 1985 | D | -1 | 0 | -1 | -4 | -4 | -1 | 0 | 0 | 10 | 2 | -2 | 0 |
| 1986 | W | -1 | 0 | 0 | -1 | 1 | -4 | -10 | -4 | 10 | -8 | -2 | 0 |
| 1987 | D | 0 | 0 | 0 | -1 | 0 | -3 | 0 | 0 | 10 | -7 | -3 | 0 |
| 1988 | C | -1 | 0 | 0 | -2 | -3 | -3 | 0 | 0 | -17 | -9 | -4 | 0 |
| 1989 | D | -2 | -1 | -1 | -2 | 0 | 0 | -1 | -2 | 10 | -3 | -2 | 0 |
| 1990 | C | -5 | -1 | -1 | 0 | -3 | 0 | -3 | -1 | -8 | -7 | -8 | -1 |
| 1991 | C | -5 | -1 | -1 | -2 | -3 | -2 | -1 | 0 | 0 | -8 | -8 | -1 |
| 1992 | C | 0 | -1 | -1 | -2 | -4 | 0 | 0 | 0 | -4 | 0 | -7 | -1 |
| 1993 | AN | -5 | -1 | -1 | -2 | 0 | -1 | -1 | 0 | 0 | -3 | -5 | 0 |
| 1994 | C | -1 | 0 | -2 | -1 | -1 | 0 | 0 | 0 | 0 | -2 | -1 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -2 | 0 | -1 | -1 | -2 | -1 | -1 | -1 | 4 | -5 | -5 | 0 |
| **Max** | | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 13 | 2 | 0 | 1 |
| **Min** | | -6 | -2 | -3 | -4 | -6 | -4 | -10 | -18 | -17 | -9 | -8 | -1 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -2 | 0 | -1 | -1 | -3 | -1 | 0 | 0 | 2 | -3 | -4 | 0 |
| Above Normal | AN | -2 | 0 | -1 | -2 | -3 | -1 | -1 | 0 | 7 | -6 | -5 | 0 |
| Below Normal | BN | -1 | 0 | -1 | -1 | -3 | -1 | -1 | -2 | 7 | -7 | -5 | 0 |
| Dry | D | -2 | -1 | -1 | -1 | -2 | -1 | 0 | 0 | 10 | -4 | -4 | 0 |
| Critical | C | -2 | -1 | -1 | -1 | -2 | -1 | -1 | -1 | -5 | -6 | -6 | -1 |

**Table C-17. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 1 | 2 | 0 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | -1 | -1 | -10 | 0 | -32 | 0 | 0 | 0 | 19 | -3 | 0 | 0 |
| 1924 | C | -1 | -3 | 0 | 0 | 0 | -1 | 0 | -5 | 0 | 0 | 0 | 0 |
| 1925 | D | -3 | -4 | 1 | -8 | -33 | 4 | -4 | -3 | 18 | -1 | 0 | 0 |
| 1926 | D | -1 | -1 | -2 | -7 | -33 | 0 | 0 | 0 | 18 | -1 | 0 | 0 |
| 1927 | W | 0 | -1 | -9 | -14 | -88 | 0 | 0 | 0 | 0 | -3 | 0 | 0 |
| 1928 | AN | -1 | -1 | -7 | -5 | -88 | -3 | 0 | 0 | 21 | -3 | 0 | 0 |
| 1929 | C | -1 | -1 | -2 | -3 | 0 | -3 | 0 | 0 | -31 | -3 | 0 | 0 |
| 1930 | D | 0 | -4 | 0 | -7 | -33 | 0 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1931 | C | -3 | -4 | -4 | -7 | 0 | -3 | -10 | 5 | 0 | -3 | 0 | 0 |
| 1932 | D | -3 | -4 | -3 | 1 | 2 | 0 | -4 | -3 | 18 | -1 | 0 | 0 |
| 1933 | C | -1 | -1 | 2 | -5 | -88 | -2 | 0 | 0 | -31 | -3 | 0 | 0 |
| 1934 | C | 0 | -4 | -4 | 0 | -49 | -4 | -10 | 0 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | -4 | -4 | -8 | -21 | 0 | 1 | -43 | 18 | -1 | 0 | 0 |
| 1936 | BN | -1 | -2 | 0 | -6 | -88 | -3 | 0 | 0 | 0 | -3 | 0 | 0 |
| 1937 | BN | -1 | -1 | -1 | -3 | -88 | -5 | 0 | 0 | -18 | -3 | 0 | 0 |
| 1938 | W | -1 | 1 | -7 | -3 | -1 | 0 | 0 | 0 | -23 | -3 | 0 | 0 |
| 1939 | D | -2 | -6 | 0 | 0 | 0 | -1 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1940 | AN | -1 | -1 | -3 | -7 | 0 | -3 | -10 | 0 | 18 | -2 | 0 | 0 |
| 1941 | W | -1 | -3 | -6 | -1 | -87 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | -1 | 0 | -9 | -5 | -24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | -1 | -1 | -5 | -5 | -88 | -4 | 0 | 0 | 23 | 0 | 0 | 0 |
| 1944 | D | -1 | -1 | -5 | 0 | -26 | -2 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1945 | BN | -1 | -1 | -7 | -7 | -88 | -3 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1946 | BN | -1 | -3 | -2 | 6 | -19 | -2 | 0 | 0 | 18 | 0 | 0 | 0 |
| 1947 | D | -2 | 0 | -10 | 0 | -35 | -2 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1948 | BN | 0 | -1 | -5 | 0 | 0 | 1 | -12 | -25 | 18 | -1 | 0 | 0 |
| 1949 | D | -2 | -2 | -5 | -4 | 0 | -1 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1950 | BN | -1 | -2 | 0 | 0 | -68 | -6 | -12 | 0 | 18 | -3 | 0 | 0 |

**Table C-17. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | -3 | -7 | -8 | 0 | 0 | 0 | 0 | 21 | -3 | 0 | 0 |
| 1952 | W | -1 | 0 | -8 | -1 | -25 | -4 | 0 | 0 | -23 | 0 | 0 | 0 |
| 1953 | W | -4 | 0 | 2 | 5 | 33 | 2 | 0 | 0 | 23 | -3 | 0 | 0 |
| 1954 | AN | -1 | 1 | -7 | -5 | -88 | -3 | 0 | 0 | 21 | -3 | 0 | 0 |
| 1955 | D | -1 | -1 | -10 | -5 | -87 | -4 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1956 | W | -1 | -1 | -6 | -7 | -88 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | -1 | -1 | -3 | -2 | -88 | -3 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1958 | W | -1 | 1 | -10 | -5 | -65 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | -3 | 0 | -4 | -5 | -44 | 2 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1960 | D | -1 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1961 | D | -1 | -1 | -7 | 0 | -22 | -4 | 0 | 0 | 18 | 1 | 0 | 0 |
| 1962 | BN | -3 | -4 | -6 | -7 | -83 | -3 | -4 | -5 | 18 | -3 | 0 | 0 |
| 1963 | W | -3 | -2 | -2 | -6 | -55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | -1 | 0 | -5 | -14 | -48 | -2 | 0 | 0 | 18 | 0 | 0 | 0 |
| 1965 | W | 0 | -1 | -6 | 1 | -37 | -3 | 0 | -5 | 0 | -3 | 0 | 0 |
| 1966 | BN | -1 | 0 | -9 | -14 | 28 | -3 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1967 | W | -2 | 0 | -10 | -6 | -54 | -2 | 0 | 0 | -26 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | -2 | -4 | 32 | 2 | 0 | 0 | 18 | -3 | 0 | 0 |
| 1969 | W | -1 | -1 | -7 | -6 | -62 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | -2 | -1 | 2 | 0 | -32 | 0 | 0 | 0 | 23 | 0 | 0 | 0 |
| 1971 | W | -1 | 1 | -9 | -5 | -22 | 0 | 0 | 0 | 23 | -3 | 0 | 0 |
| 1972 | BN | -1 | -1 | -3 | 0 | -25 | -3 | -1 | -5 | 18 | -3 | 0 | 0 |
| 1973 | AN | -3 | -3 | -5 | -12 | -10 | 0 | 0 | 0 | 21 | -3 | 0 | 0 |
| 1974 | W | -1 | 1 | -10 | -4 | 17 | 0 | 0 | 0 | 0 | -3 | 0 | 0 |
| 1975 | W | -2 | 0 | -4 | -3 | -88 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | -2 | -2 | 0 | -2 | -13 | -4 | 0 | -14 | 0 | -2 | 0 | 0 |
| 1977 | C | -3 | -4 | -4 | -8 | -55 | 0 | 0 | 0 | 0 | -3 | 0 | 0 |
| 1978 | AN | -3 | -4 | -2 | -8 | -33 | -3 | -4 | 5 | -18 | -1 | 0 | 0 |

**Table C-17. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | -1 | -1 | -3 | -4 | -87 | -3 | 0 | 0 | 0 | -3 | 0 | 0 |
| 1980 | AN | -1 | 1 | -10 | -6 | -88 | -3 | 0 | 0 | 21 | -3 | 0 | 0 |
| 1981 | D | -1 | -1 | -4 | -3 | -87 | -1 | 0 | 0 | 18 | 1 | 0 | 0 |
| 1982 | W | -1 | -1 | -6 | -14 | -88 | -5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1983 | W | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | -32 | 0 | 0 | 0 | 23 | -3 | 0 | 0 |
| 1985 | D | -1 | -1 | -5 | -14 | -54 | -2 | 0 | 0 | 18 | 1 | 0 | 0 |
| 1986 | W | -1 | -1 | -2 | -5 | 21 | -6 | -17 | -10 | 18 | -3 | 0 | 0 |
| 1987 | D | 0 | -1 | -1 | -2 | 0 | -4 | 0 | 0 | 18 | -2 | 0 | 0 |
| 1988 | C | 0 | -1 | 1 | -6 | -46 | -4 | 0 | 0 | -31 | -3 | 0 | 0 |
| 1989 | D | -2 | -4 | -3 | -8 | 0 | 0 | -2 | -4 | 18 | -1 | 0 | 0 |
| 1990 | C | -3 | -3 | -3 | 0 | -46 | 0 | -6 | -2 | -14 | -2 | 0 | 0 |
| 1991 | C | -3 | -4 | -4 | -8 | -48 | -2 | -2 | 0 | 0 | -3 | 0 | 0 |
| 1992 | C | 0 | -4 | -4 | -8 | -53 | 0 | -1 | 0 | -7 | 0 | 0 | 0 |
| 1993 | AN | -3 | -4 | -4 | -8 | 0 | -1 | -2 | 0 | 0 | -1 | 0 | 0 |
| 1994 | C | -1 | -1 | -8 | -3 | -21 | -1 | 0 | 0 | 0 | -1 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | -1 | -1 | -4 | -4 | -37 | -2 | -1 | -2 | 8 | -2 | 0 | 0 |
| **Max** | | 1 | 2 | 2 | 6 | 33 | 4 | 1 | 5 | 23 | 1 | 0 | 0 |
| **Min** | | -4 | -6 | -10 | -14 | -88 | -6 | -17 | -43 | -31 | -3 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -1 | 0 | -5 | -4 | -41 | -2 | -1 | -1 | 3 | -1 | 0 | 0 |
| Above Normal | AN | -1 | -1 | -5 | -7 | -40 | -2 | -2 | 0 | 12 | -2 | 0 | 0 |
| Below Normal | BN | -1 | -1 | -4 | -4 | -42 | -2 | -2 | -6 | 13 | -2 | 0 | 0 |
| Dry | D | -1 | -2 | -4 | -4 | -29 | -1 | -1 | -1 | 18 | -1 | 0 | 0 |
| Critical | C | -1 | -2 | -3 | -4 | -35 | -2 | -2 | -1 | -9 | -2 | 0 | 0 |

**Table C-18. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -11 | 0 |
| 1923 | BN | 0 | 0 | -1 | 0 | -2 | 0 | 0 | 0 | 614 | -199 | -8 | -1 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -11 | 0 | 0 | 0 | 0 |
| 1925 | D | -1 | 0 | 0 | -2 | -3 | 4 | -4 | -6 | 609 | -73 | -12 | 1 |
| 1926 | D | 0 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 609 | -100 | -12 | 0 |
| 1927 | W | 0 | 0 | -1 | -4 | -7 | 0 | 0 | 0 | 0 | -197 | 0 | 0 |
| 1928 | AN | 0 | 0 | -1 | -1 | -7 | -3 | 0 | 0 | 686 | -199 | -11 | 0 |
| 1929 | C | 0 | 0 | 0 | -1 | 0 | -3 | 0 | 0 | -1,015 | -203 | -5 | 0 |
| 1930 | D | 0 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 609 | -125 | -5 | 0 |
| 1931 | C | -1 | 0 | 0 | -2 | 0 | -3 | -10 | 11 | 0 | -203 | -12 | -2 |
| 1932 | D | -1 | 0 | 0 | 0 | 0 | 0 | -4 | -8 | 609 | -73 | -12 | 1 |
| 1933 | C | 0 | 0 | 0 | -2 | -7 | -2 | 0 | 0 | -1,015 | -203 | -7 | -1 |
| 1934 | C | 0 | 0 | 0 | 0 | -4 | -4 | -10 | 0 | 0 | 0 | -12 | -2 |
| 1935 | BN | 0 | 0 | 0 | -2 | -2 | 0 | 1 | -100 | 609 | -78 | -8 | 0 |
| 1936 | BN | 0 | 0 | 0 | -2 | -7 | -3 | 0 | 0 | 0 | -199 | -11 | -1 |
| 1937 | BN | 0 | 0 | 0 | -1 | -7 | -5 | 0 | 0 | -609 | -199 | -11 | 0 |
| 1938 | W | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | -768 | -197 | -11 | 0 |
| 1939 | D | 0 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | 609 | -192 | -4 | 0 |
| 1940 | AN | 0 | 0 | 0 | -2 | 0 | -3 | -10 | 0 | 609 | -173 | -10 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | -7 | -1 | 0 | 0 | 0 | 0 | -11 | 0 |
| 1942 | W | 0 | 0 | -1 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | -1 | -7 | -4 | 0 | 0 | 766 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | -2 | -2 | 0 | 0 | 609 | -174 | -5 | -1 |
| 1945 | BN | 0 | 0 | -1 | -2 | -7 | -3 | 0 | 0 | 609 | -197 | -10 | 0 |
| 1946 | BN | 0 | 0 | 0 | 2 | -1 | -2 | 0 | 0 | 609 | 0 | -5 | 0 |
| 1947 | D | -1 | 0 | -1 | 0 | -3 | -2 | 0 | 0 | 609 | -129 | -3 | -1 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 1 | -12 | -58 | 609 | -102 | -7 | 0 |
| 1949 | D | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 609 | -172 | -7 | -1 |
| 1950 | BN | 0 | 0 | 0 | 0 | -5 | -6 | -12 | 0 | 609 | -198 | -11 | -1 |

**Table C-18. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 687 | -199 | 0 | -1 |
| 1952 | W | 0 | 0 | -1 | 0 | -2 | -4 | 0 | 0 | -768 | 0 | -11 | -2 |
| 1953 | W | -1 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 770 | -197 | -11 | 0 |
| 1954 | AN | 0 | 0 | -1 | -1 | -7 | -3 | 0 | 0 | 690 | -199 | -11 | 0 |
| 1955 | D | 0 | 0 | -1 | -2 | -7 | -4 | 0 | 0 | 609 | -174 | -11 | 0 |
| 1956 | W | 0 | 0 | 0 | -2 | -7 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | -1 | -7 | -3 | 0 | 0 | 609 | -199 | 0 | 0 |
| 1958 | W | 0 | 0 | -1 | -2 | -5 | -2 | 0 | 0 | 0 | 0 | -11 | -1 |
| 1959 | BN | -1 | 0 | 0 | -1 | -3 | 2 | 0 | 0 | 609 | -197 | -8 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 609 | -121 | -6 | -2 |
| 1961 | D | 0 | 0 | -1 | 0 | -2 | -4 | 0 | 0 | 609 | 36 | -6 | -2 |
| 1962 | BN | -1 | 0 | 0 | -2 | -6 | -3 | -4 | -11 | 609 | -197 | -4 | -1 |
| 1963 | W | -1 | 0 | 0 | -2 | -4 | 0 | 0 | 0 | 0 | 0 | -11 | 0 |
| 1964 | D | 0 | 0 | 0 | -4 | -4 | -2 | 0 | 0 | 609 | 0 | -2 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | -3 | -3 | 0 | -12 | 0 | -199 | -11 | -1 |
| 1966 | BN | 0 | 0 | -1 | -4 | 2 | -3 | 0 | 0 | 609 | -197 | -6 | -1 |
| 1967 | W | 0 | 0 | -1 | -2 | -4 | -2 | 0 | 0 | -854 | 0 | -11 | -2 |
| 1968 | BN | 0 | 0 | 0 | -1 | 2 | 2 | 0 | 0 | 609 | -198 | 0 | 0 |
| 1969 | W | 0 | 0 | -1 | -2 | -5 | -3 | 0 | 0 | 0 | 0 | -11 | 0 |
| 1970 | W | -1 | 0 | 0 | 0 | -3 | 0 | 0 | 0 | 754 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | -1 | -1 | -2 | 0 | 0 | 0 | 764 | -197 | -11 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | -2 | -3 | -1 | -11 | 609 | -198 | -7 | 0 |
| 1973 | AN | -1 | 0 | 0 | -3 | -1 | 0 | 0 | 0 | 686 | -199 | -11 | 0 |
| 1974 | W | 0 | 0 | -1 | -1 | 1 | 0 | 0 | 0 | 0 | -197 | 0 | -1 |
| 1975 | W | -1 | 0 | 0 | -1 | -7 | -3 | 0 | 0 | 0 | 0 | 0 | -1 |
| 1976 | C | 0 | 0 | 0 | 0 | -1 | -4 | 0 | -33 | 0 | -139 | -12 | -2 |
| 1977 | C | -1 | 0 | 0 | -2 | -4 | 0 | 0 | 1 | 0 | -203 | -12 | 0 |
| 1978 | AN | -1 | 0 | 0 | -2 | -3 | -3 | -4 | 11 | -609 | -78 | -7 | 0 |

**Table C-18. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | -1 | -7 | -3 | 0 | 0 | 0 | -198 | -11 | 0 |
| 1980 | AN | 0 | 0 | -1 | -2 | -7 | -3 | 0 | 0 | 698 | -200 | -11 | 0 |
| 1981 | D | 0 | 0 | 0 | -1 | -7 | -1 | 0 | 0 | 609 | 36 | -4 | -1 |
| 1982 | W | 0 | 0 | 0 | -4 | -7 | -5 | 0 | 0 | 0 | -2 | -11 | 0 |
| 1983 | W | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 1984 | W | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 755 | -197 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | -4 | -4 | -2 | 0 | 0 | 609 | 36 | -3 | -1 |
| 1986 | W | 0 | 0 | 0 | -1 | 2 | -6 | -17 | -23 | 609 | -199 | -3 | 0 |
| 1987 | D | 0 | 0 | 0 | -1 | 0 | -4 | 0 | 0 | 609 | -172 | -5 | 0 |
| 1988 | C | 0 | 0 | 0 | -2 | -4 | -4 | 0 | 0 | -1,015 | -203 | -5 | -1 |
| 1989 | D | 0 | 0 | 0 | -2 | 0 | 0 | -2 | -9 | 609 | -73 | -3 | -1 |
| 1990 | C | -1 | 0 | 0 | 0 | -4 | 0 | -6 | -6 | -467 | -159 | -12 | -2 |
| 1991 | C | -1 | 0 | 0 | -2 | -4 | -2 | -2 | 0 | 0 | -197 | -12 | -2 |
| 1992 | C | 0 | 0 | 0 | -2 | -4 | 0 | -1 | 0 | -242 | 0 | -11 | -2 |
| 1993 | AN | -1 | 0 | 0 | -2 | 0 | -1 | -2 | 0 | 0 | -78 | -7 | 0 |
| 1994 | C | 0 | 0 | -1 | -1 | -2 | -1 | 0 | 0 | 0 | -53 | -2 | -1 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | -1 | -3 | -2 | -1 | -4 | 249 | -116 | -7 | 0 |
| **Max** | | 0 | 0 | 0 | 2 | 3 | 4 | 1 | 11 | 770 | 36 | 0 | 2 |
| **Min** | | -1 | -1 | -1 | -4 | -7 | -6 | -17 | -100 | -1,015 | -203 | -12 | -2 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | -1 | -3 | -2 | -1 | -2 | 97 | -75 | -6 | 0 |
| Above Normal | AN | 0 | 0 | 0 | -2 | -3 | -2 | -2 | 1 | 406 | -153 | -8 | 0 |
| Below Normal | BN | 0 | 0 | 0 | -1 | -3 | -2 | -2 | -13 | 435 | -168 | -8 | 0 |
| Dry | D | 0 | 0 | 0 | -1 | -2 | -1 | -1 | -1 | 609 | -92 | -6 | 0 |
| Critical | C | 0 | 0 | 0 | -1 | -3 | -2 | -2 | -3 | -313 | -130 | -8 | -1 |

**Table C-19. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | -1 | -1 | 2 | -1 | 0 | 0 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | -1 | -3 | -4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | -1 | -4 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | -1 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | -1 | -4 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | -2 | -2 | -2 | 0 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | -1 | -4 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | -1 | -4 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | -1 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | -4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | -1 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | -3 | -3 | -2 | 0 | 0 | 0 | 0 | 0 |

**Table C-19. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1952 | W | 0 | 0 | -1 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | -1 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | -1 | -1 | -3 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | -1 | -2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | -1 | -3 | -2 | -1 | 0 | 0 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | -2 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | -2 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | -1 | -2 | 1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | -1 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | -1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | -1 | -3 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | -1 | -1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | -1 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 |

**Table C-19. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | -1 | -4 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | -1 | -1 | -4 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | -1 | -4 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | -3 | -4 | -3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | -2 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | -1 | 1 | -3 | -3 | 0 | 0 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | -1 | -2 | -2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | -2 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | -1 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | -1 | -3 | -4 | -3 | -3 | 0 | 0 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table C-20. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113,501 | -105,527 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -6,991 | 0 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | 0 | -5,545 | -3,992 | 112,570 | -38,569 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -53,084 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -104,289 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 126,859 | -105,527 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -187,617 | -107,672 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -65,983 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | 0 | -13,625 | 7,183 | 0 | -107,672 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | 0 | -6,334 | -5,134 | 112,570 | -38,569 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -187,617 | -107,672 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | 0 | -14,502 | -133 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 1,347 | -63,501 | 112,570 | -41,354 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -105,538 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -112,570 | -105,337 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -141,980 | -104,289 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -101,643 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -13,675 | 0 | 112,570 | -91,751 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141,673 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -92,155 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -104,496 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -68,209 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -17,157 | -36,444 | 112,570 | -54,238 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -91,056 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -16,758 | 0 | 112,570 | -104,652 | 0 | 0 |

**Table C-20. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127,074 | -105,527 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -142,105 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142,432 | -104,289 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127,536 | -105,527 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -92,205 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -105,527 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -104,443 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -64,316 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | 18,874 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -5,975 | -7,009 | 112,570 | -104,408 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | 0 | -150 | -7,460 | 0 | -105,559 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -104,585 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -157,835 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -104,613 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139,420 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141,267 | -104,289 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | 0 | -1,424 | -6,956 | 112,570 | -104,749 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 126,918 | -105,527 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -104,289 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -21,178 | 0 | -73,675 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | 0 | 126 | 730 | 0 | -107,672 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -6,011 | 6,931 | -112,570 | -41,354 | 0 | 0 |
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -104,900 | 0 | 0 |

**Table C-20. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 129,130 | -105,723 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | 18,899 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,239 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139,669 | -104,289 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | 19,025 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | -23,913 | -14,685 | 112,570 | -105,527 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112,570 | -91,038 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -187,617 | -107,672 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | 0 | -3,489 | -5,398 | 112,570 | -38,569 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | 0 | -8,024 | -3,641 | -86,311 | -84,239 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | -2,342 | 0 | 0 | -104,414 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | 0 | -926 | 0 | -44,780 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | 0 | -2,563 | 0 | 0 | -41,354 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -28,280 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | 0 | -1,931 | -2,297 | 46,014 | -61,675 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 1,347 | 7,183 | 142,432 | 19,025 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | -23,913 | -63,501 | -187,617 | -107,672 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | 0 | -1,146 | -1,055 | 17,862 | -39,907 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | 0 | -2,225 | 693 | 75,009 | -80,782 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | 0 | -2,855 | -8,136 | 80,474 | -89,203 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | 0 | -961 | -908 | 112,570 | -48,662 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | 0 | -3,274 | -2,002 | -57,829 | -69,081 | 0 | 0 |

**Table C-21. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 42 | 47 | 0 | -49 | 0 | 0 | 0 | 0 | 0 | 0 | -254 | 3 |
| 1923 | BN | -26 | -11 | -87 | -2 | -52 | 0 | 0 | 0 | 2,018 | -1,755 | -184 | -29 |
| 1924 | C | -19 | -63 | -3 | 0 | 0 | -11 | 0 | -41 | 0 | 0 | 0 | 0 |
| 1925 | D | -85 | -79 | 4 | -75 | -55 | 33 | -9 | -24 | 2,001 | -641 | -264 | 44 |
| 1926 | D | -15 | -16 | -17 | -65 | -55 | 0 | 0 | 0 | 2,001 | -883 | -264 | 7 |
| 1927 | W | 0 | -16 | -77 | -133 | -146 | -3 | 0 | 0 | 0 | -1,734 | 0 | 3 |
| 1928 | AN | -16 | -18 | -57 | -44 | -145 | -22 | 0 | 0 | 2,255 | -1,755 | -254 | 3 |
| 1929 | C | -18 | -20 | -15 | -31 | 0 | -22 | 0 | 0 | -3,335 | -1,790 | -104 | -20 |
| 1930 | D | -8 | -78 | -3 | -64 | -55 | 0 | 0 | 0 | 2,001 | -1,097 | -117 | 0 |
| 1931 | C | -83 | -78 | -35 | -69 | 0 | -20 | -22 | 42 | 0 | -1,790 | -263 | -95 |
| 1932 | D | -85 | -79 | -27 | 8 | 4 | 0 | -10 | -30 | 2,001 | -641 | -264 | 56 |
| 1933 | C | -15 | -14 | 19 | -51 | -146 | -16 | 0 | 0 | -3,335 | -1,790 | -168 | -41 |
| 1934 | C | 0 | -79 | -32 | 0 | -82 | -28 | -23 | -1 | 0 | 0 | -263 | -95 |
| 1935 | BN | 0 | -79 | -33 | -75 | -35 | 0 | 2 | -375 | 2,001 | -688 | -189 | -19 |
| 1936 | BN | -16 | -40 | -3 | -56 | -146 | -22 | 0 | 0 | 0 | -1,755 | -254 | -41 |
| 1937 | BN | -18 | -18 | -7 | -26 | -146 | -41 | 0 | 0 | -2,001 | -1,751 | -254 | 3 |
| 1938 | W | -17 | 19 | -59 | -28 | -1 | 0 | 0 | 0 | -2,524 | -1,734 | -254 | 3 |
| 1939 | D | -43 | -118 | 0 | 0 | 0 | -12 | 0 | 0 | 2,001 | -1,690 | -90 | -17 |
| 1940 | AN | -14 | -27 | -23 | -66 | 0 | -21 | -22 | 0 | 2,001 | -1,526 | -221 | 3 |
| 1941 | W | -33 | -67 | -47 | -11 | -144 | -7 | 0 | 0 | 0 | 0 | -254 | 3 |
| 1942 | W | -22 | 2 | -74 | -44 | -40 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 1943 | W | -30 | -29 | -39 | -44 | -146 | -33 | 0 | 0 | 2,519 | 0 | 0 | 3 |
| 1944 | D | -19 | -19 | -40 | 0 | -44 | -19 | 0 | 0 | 2,001 | -1,532 | -115 | -26 |
| 1945 | BN | -15 | -23 | -60 | -67 | -146 | -23 | 0 | 0 | 2,001 | -1,737 | -230 | 3 |
| 1946 | BN | -15 | -67 | -15 | 56 | -31 | -17 | 0 | 0 | 2,001 | 0 | -105 | -20 |
| 1947 | D | -58 | 6 | -88 | 0 | -58 | -17 | 0 | 0 | 2,001 | -1,134 | -75 | -23 |
| 1948 | BN | -13 | -20 | -40 | 0 | 0 | 5 | -27 | -215 | 2,001 | -902 | -157 | -19 |
| 1949 | D | -56 | -38 | -41 | -41 | 0 | -10 | 0 | 0 | 2,001 | -1,514 | -154 | -24 |
| 1950 | BN | -17 | -42 | -1 | 0 | -112 | -45 | -27 | 0 | 2,001 | -1,740 | -254 | -53 |

**Table C-21. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 1 | -56 | -61 | -72 | 0 | 0 | 0 | 0 | 2,259 | -1,755 | 0 | -23 |
| 1952 | W | -20 | -9 | -72 | -7 | -41 | -30 | 0 | 0 | -2,526 | 0 | -254 | -66 |
| 1953 | W | -104 | 0 | 14 | 43 | 55 | 12 | 0 | 0 | 2,532 | -1,734 | -254 | 3 |
| 1954 | AN | -19 | 22 | -61 | -44 | -146 | -26 | 0 | 0 | 2,267 | -1,755 | -254 | 3 |
| 1955 | D | -22 | -16 | -82 | -51 | -144 | -35 | 0 | 0 | 2,001 | -1,533 | -237 | 7 |
| 1956 | W | -16 | -21 | -49 | -68 | -146 | -23 | 0 | 0 | 0 | 0 | 0 | 3 |
| 1957 | AN | -23 | -20 | -23 | -19 | -146 | -24 | 0 | 0 | 2,001 | -1,755 | 0 | -22 |
| 1958 | W | -16 | 16 | -87 | -51 | -108 | -15 | 0 | 0 | 0 | 0 | -254 | -47 |
| 1959 | BN | -71 | 1 | -30 | -44 | -72 | 14 | 0 | 0 | 2,001 | -1,737 | -175 | -19 |
| 1960 | D | -28 | -70 | 1 | 0 | 0 | 0 | 0 | 0 | 2,001 | -1,069 | -126 | -77 |
| 1961 | D | -19 | -19 | -58 | 0 | -36 | -28 | 0 | 0 | 2,001 | 314 | -140 | -95 |
| 1962 | BN | -85 | -78 | -49 | -70 | -137 | -23 | -10 | -41 | 2,001 | -1,736 | -85 | -40 |
| 1963 | W | -81 | -47 | -14 | -56 | -91 | 0 | 0 | 0 | 0 | 0 | -254 | 3 |
| 1964 | D | -16 | 0 | -40 | -126 | -80 | -16 | 0 | 0 | 2,001 | 0 | -48 | -15 |
| 1965 | W | -10 | -17 | -49 | 13 | -61 | -24 | 0 | -44 | 0 | -1,755 | -255 | -24 |
| 1966 | BN | -20 | 0 | -74 | -126 | 46 | -22 | 0 | 0 | 2,001 | -1,739 | -130 | -23 |
| 1967 | W | -44 | 6 | -88 | -56 | -90 | -12 | 0 | 0 | -2,806 | 0 | -254 | -79 |
| 1968 | BN | -11 | 0 | -17 | -40 | 52 | 14 | 0 | 0 | 2,001 | -1,739 | 9 | -17 |
| 1969 | W | -28 | -16 | -59 | -56 | -103 | -22 | 0 | 0 | 0 | 0 | -254 | 0 |
| 1970 | W | -61 | -23 | 16 | 0 | -53 | 0 | 0 | 0 | 2,479 | 0 | 0 | 3 |
| 1971 | W | -20 | 17 | -74 | -44 | -36 | -1 | 0 | 0 | 2,511 | -1,734 | -254 | 3 |
| 1972 | BN | -23 | -20 | -27 | 0 | -41 | -21 | -2 | -41 | 2,001 | -1,742 | -153 | 0 |
| 1973 | AN | -73 | -66 | -45 | -109 | -16 | 0 | 0 | 0 | 2,256 | -1,755 | -254 | 3 |
| 1974 | W | -14 | 26 | -87 | -34 | 29 | 0 | 0 | 0 | 0 | -1,734 | 0 | -38 |
| 1975 | W | -57 | 1 | -32 | -25 | -146 | -23 | 0 | 0 | 0 | 0 | 0 | -32 |
| 1976 | C | -53 | -43 | 0 | -15 | -22 | -28 | 0 | -125 | 0 | -1,225 | -263 | -82 |
| 1977 | C | -85 | -79 | -38 | -75 | -91 | 0 | 0 | 4 | 0 | -1,790 | -263 | 0 |
| 1978 | AN | -85 | -79 | -21 | -75 | -55 | -21 | -10 | 41 | -2,001 | -688 | -160 | 3 |

**Table C-21. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Old River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | -22 | -21 | -29 | -36 | -144 | -23 | 0 | 0 | 0 | -1,744 | -254 | 3 |
| 1980 | AN | -17 | 18 | -88 | -56 | -146 | -21 | 0 | 0 | 2,296 | -1,758 | -254 | 0 |
| 1981 | D | -28 | -22 | -32 | -32 | -144 | -9 | 0 | 0 | 2,001 | 314 | -80 | -22 |
| 1982 | W | -18 | -19 | -49 | -133 | -146 | -38 | 0 | 0 | 0 | -21 | -254 | 0 |
| 1983 | W | -80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| 1984 | W | 0 | 0 | 0 | 0 | -53 | 0 | 0 | 0 | 2,483 | -1,734 | 0 | 3 |
| 1985 | D | -18 | -16 | -42 | -126 | -90 | -16 | 0 | 0 | 2,001 | 316 | -64 | -22 |
| 1986 | W | -20 | -27 | -14 | -45 | 34 | -48 | -38 | -87 | 2,001 | -1,755 | -60 | 0 |
| 1987 | D | 0 | -18 | -9 | -18 | 0 | -32 | 0 | 0 | 2,001 | -1,514 | -104 | -17 |
| 1988 | C | -13 | -23 | 12 | -59 | -76 | -35 | 0 | 0 | -3,335 | -1,790 | -120 | -22 |
| 1989 | D | -47 | -79 | -29 | -75 | 0 | 0 | -6 | -32 | 2,001 | -641 | -65 | -52 |
| 1990 | C | -85 | -58 | -24 | 0 | -76 | 0 | -13 | -21 | -1,534 | -1,401 | -263 | -95 |
| 1991 | C | -85 | -79 | -38 | -75 | -80 | -20 | -4 | 0 | 0 | -1,736 | -263 | -95 |
| 1992 | C | 0 | -79 | -38 | -75 | -87 | 0 | -1 | 0 | -796 | 0 | -240 | -95 |
| 1993 | AN | -85 | -79 | -33 | -75 | 0 | -12 | -4 | 0 | 0 | -688 | -160 | 3 |
| 1994 | C | -16 | -16 | -70 | -24 | -35 | -5 | 0 | 0 | 0 | -470 | -42 | -39 |
| | | | | | | | | | | | | | |
| **Average** | | -32 | -30 | -35 | -41 | -62 | -13 | -3 | -14 | 818 | -1,025 | -158 | -19 |
| **Max** | | 42 | 47 | 19 | 56 | 55 | 33 | 2 | 42 | 2,532 | 316 | 9 | 90 |
| **Min** | | -104 | -118 | -88 | -133 | -146 | -48 | -38 | -375 | -3,335 | -1,790 | -264 | -95 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | -33 | -10 | -45 | -37 | -68 | -13 | -2 | -6 | 318 | -664 | -136 | -8 |
| Above Normal | AN | -29 | -26 | -41 | -61 | -65 | -15 | -4 | 4 | 1,333 | -1,343 | -181 | -2 |
| Below Normal | BN | -25 | -30 | -34 | -35 | -69 | -15 | -5 | -48 | 1,431 | -1,483 | -173 | -19 |
| Dry | D | -34 | -41 | -31 | -42 | -47 | -10 | -2 | -5 | 2,001 | -809 | -138 | -17 |
| Critical | C | -39 | -53 | -22 | -39 | -58 | -15 | -5 | -12 | -1,028 | -1,149 | -188 | -57 |

**Table C-22. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 259 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 290 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 0 | 0 | 318 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | 611 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | 468 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 189 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 258 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | 1,234 | 0 | 0 | 406 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | 1,081 | 0 | 0 | 566 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | 468 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 566 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 0 | 0 | 387 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | 8 | 3,988 | 0 | 292 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 291 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | 916 | 0 | 0 | 508 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 463 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 286 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 811 | 0 | 0 | 191 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | 811 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 345 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | 916 | 0 | 0 | 292 | 0 | 0 | 0 |

**Table C-22. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 258 | 0 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 811 | 0 | 0 | 463 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 189 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 257 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 252 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 468 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | 1,032 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 172 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 463 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | 811 | 0 | 0 | 191 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | 916 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 258 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 190 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 0 | 0 | 407 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 3,713 | 404 | 566 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 502 | 0 | 0 | 0 |

**Table C-22. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 254 | 0 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | 811 | 0 | 0 | 174 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 162 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 191 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 0 | 0 | 308 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | 1,065 | 0 | 0 | 312 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | 717 | 0 | 0 | 468 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 1,319 | 2,892 | 0 | 566 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | 717 | 0 | 0 | 566 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | 823 | 0 | 0 | 286 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | 834 | 0 | 0 | 566 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | 469 | 145 | 6 | 308 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 1,319 | 3,988 | 404 | 566 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 219 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | 411 | 0 | 0 | 287 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | 221 | 285 | 0 | 307 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | 707 | 0 | 0 | 312 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | 1,042 | 550 | 34 | 474 | 0 | 0 | 0 |

**Table C-23. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 | 0 | 8 | 1 |
| 1923 | BN | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1924 | C | 3 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1925 | D | 1 | 1 | 2 | 2 | 4 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1926 | D | 2 | 0 | 1 | 2 | 3 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1927 | W | 2 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1928 | AN | 3 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1929 | C | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 19 | 9 | 8 | 1 |
| 1930 | D | 1 | 0 | 2 | 2 | 4 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1931 | C | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 27 | 9 | 8 | 1 |
| 1932 | D | 5 | 1 | 2 | 2 | 4 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1933 | C | 3 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 27 | 9 | 8 | 1 |
| 1934 | C | 2 | 0 | 2 | 2 | 4 | 2 | 0 | 0 | 18 | 9 | 8 | 1 |
| 1935 | BN | 3 | 1 | 2 | 2 | 4 | 0 | 1 | 0 | 14 | 9 | 8 | 1 |
| 1936 | BN | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1937 | BN | 3 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 24 | 9 | 8 | 1 |
| 1938 | W | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 8 | 8 | 1 |
| 1939 | D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 15 | 9 | 8 | 0 |
| 1940 | AN | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 14 | 8 | 8 | 1 |
| 1941 | W | 2 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 8 | 1 |
| 1942 | W | 3 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 9 | 0 | 8 | 1 |
| 1943 | W | 4 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 9 | 0 | 8 | 1 |
| 1944 | D | 2 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1945 | BN | 2 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1946 | BN | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1947 | D | 3 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1948 | BN | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1949 | D | 3 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1950 | BN | 2 | 1 | 2 | 2 | 3 | 1 | 0 | 0 | 14 | 9 | 8 | 1 |

**Table C-23. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 4 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1952 | W | 3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 22 | 0 | 8 | 1 |
| 1953 | W | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1954 | AN | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1955 | D | 3 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1956 | W | 2 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 9 | 0 | 8 | 1 |
| 1957 | AN | 4 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1958 | W | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 8 | 1 |
| 1959 | BN | 4 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1960 | D | 2 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1961 | D | 2 | 1 | 2 | 2 | 3 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1962 | BN | 2 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 14 | 9 | 8 | 0 |
| 1963 | W | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 8 | 0 | 8 | 1 |
| 1964 | D | 3 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 15 | 9 | 5 | 1 |
| 1965 | W | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1966 | BN | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1967 | W | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 22 | 0 | 8 | 1 |
| 1968 | BN | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 14 | 9 | 8 | 0 |
| 1969 | W | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 9 | 0 | 8 | 1 |
| 1970 | W | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1971 | W | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1972 | BN | 4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1973 | AN | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1974 | W | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1975 | W | 4 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 9 | 0 | 8 | 1 |
| 1976 | C | 4 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 19 | 9 | 8 | 1 |
| 1977 | C | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 16 | 27 | 9 | 8 | 1 |
| 1978 | AN | 5 | 1 | 2 | 2 | 4 | 1 | 0 | 0 | 24 | 8 | 8 | 1 |

**Table C-23. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Delta Smelt at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continue)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 4 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 14 | 9 | 8 | 1 |
| 1980 | AN | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 12 | 8 | 8 | 1 |
| 1981 | D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 15 | 9 | 7 | 1 |
| 1982 | W | 2 | 1 | 2 | 2 | 3 | 1 | 0 | 0 | 8 | 0 | 8 | 1 |
| 1983 | W | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1985 | D | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 15 | 9 | 5 | 1 |
| 1986 | W | 3 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 9 | 8 | 8 | 1 |
| 1987 | D | 3 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1988 | C | 1 | 1 | 2 | 2 | 3 | 2 | 0 | 0 | 15 | 9 | 8 | 1 |
| 1989 | D | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 15 | 9 | 8 | 0 |
| 1990 | C | 2 | 1 | 2 | 1 | 2 | 1 | 0 | 0 | 22 | 9 | 8 | 1 |
| 1991 | C | 5 | 1 | 1 | 2 | 4 | 2 | 1 | 0 | 27 | 9 | 8 | 1 |
| 1992 | C | 5 | 1 | 1 | 2 | 4 | 1 | 0 | 0 | 27 | 9 | 8 | 1 |
| 1993 | AN | 5 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 14 | 8 | 8 | 1 |
| 1994 | C | 3 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 27 | 9 | 8 | 1 |
| | | | | | | | | | | | | | |
| **Average** | | 3 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 15 | 7 | 8 | 1 |
| **Max** | | 5 | 1 | 2 | 2 | 4 | 2 | 1 | 16 | 27 | 9 | 8 | 1 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 10 | 4 | 7 | 1 |
| Above Normal | AN | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 14 | 8 | 8 | 1 |
| Below Normal | BN | 3 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 15 | 9 | 8 | 1 |
| Dry | D | 3 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 15 | 9 | 7 | 1 |
| Critical | C | 3 | 1 | 1 | 2 | 2 | 1 | 0 | 1 | 23 | 9 | 8 | 1 |

**Table C-24. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 1 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 |
| 1923 | BN | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1924 | C | 2 | 2 | 5 | 6 | 16 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1925 | D | 1 | 3 | 6 | 8 | 55 | 1 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1926 | D | 1 | 1 | 5 | 7 | 46 | 1 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1927 | W | 2 | 4 | 6 | 7 | 43 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1928 | AN | 2 | 2 | 4 | 5 | 32 | 0 | 0 | 0 | 22 | 3 | 0 | 0 |
| 1929 | C | 2 | 3 | 5 | 5 | 15 | 2 | 0 | 0 | 35 | 3 | 0 | 0 |
| 1930 | D | 1 | 1 | 6 | 8 | 55 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1931 | C | 1 | 1 | 4 | 7 | 18 | 2 | 0 | 0 | 48 | 3 | 0 | 0 |
| 1932 | D | 3 | 4 | 6 | 8 | 53 | 1 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1933 | C | 2 | 2 | 6 | 7 | 46 | 0 | 0 | 0 | 48 | 3 | 0 | 0 |
| 1934 | C | 1 | 1 | 6 | 8 | 55 | 2 | 0 | 0 | 33 | 3 | 0 | 0 |
| 1935 | BN | 2 | 4 | 6 | 8 | 55 | 0 | 2 | 0 | 25 | 3 | 0 | 0 |
| 1936 | BN | 2 | 2 | 5 | 6 | 29 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1937 | BN | 2 | 2 | 5 | 6 | 30 | 2 | 0 | 0 | 43 | 3 | 0 | 0 |
| 1938 | W | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 3 | 0 | 0 |
| 1939 | D | 3 | 3 | 2 | 5 | 22 | 0 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1940 | AN | 1 | 2 | 6 | 7 | 11 | 2 | 0 | 0 | 24 | 3 | 0 | 0 |
| 1941 | W | 1 | 2 | 5 | 0 | 24 | 0 | 0 | 0 | 13 | 0 | 0 | 0 |
| 1942 | W | 2 | 3 | 1 | 3 | 30 | 0 | 0 | 0 | 15 | 0 | 0 | 0 |
| 1943 | W | 3 | 3 | 2 | 3 | 32 | 2 | 0 | 0 | 16 | 0 | 0 | 0 |
| 1944 | D | 2 | 2 | 4 | 5 | 30 | 0 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1945 | BN | 1 | 3 | 6 | 7 | 45 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1946 | BN | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1947 | D | 2 | 3 | 4 | 6 | 15 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1948 | BN | 1 | 2 | 6 | 7 | 29 | 1 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1949 | D | 2 | 3 | 3 | 6 | 0 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1950 | BN | 1 | 2 | 6 | 6 | 46 | 2 | 0 | 0 | 25 | 3 | 0 | 0 |

**Table C-24. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 3 | 3 | 0 | 6 | 35 | 0 | 0 | 0 | 22 | 3 | 0 | 0 |
| 1952 | W | 2 | 3 | 5 | 0 | 0 | 2 | 0 | 0 | 39 | 0 | 0 | 0 |
| 1953 | W | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1954 | AN | 2 | 3 | 2 | 5 | 33 | 2 | 0 | 0 | 22 | 3 | 0 | 0 |
| 1955 | D | 2 | 3 | 5 | 5 | 32 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1956 | W | 1 | 2 | 6 | 7 | 43 | 0 | 0 | 0 | 16 | 0 | 0 | 0 |
| 1957 | AN | 3 | 3 | 2 | 5 | 33 | 0 | 0 | 0 | 21 | 3 | 0 | 0 |
| 1958 | W | 2 | 3 | 4 | 5 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| 1959 | BN | 3 | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1960 | D | 1 | 1 | 5 | 6 | 24 | 1 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1961 | D | 2 | 2 | 6 | 7 | 42 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1962 | BN | 1 | 2 | 6 | 7 | 46 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1963 | W | 1 | 3 | 5 | 5 | 32 | 0 | 0 | 0 | 15 | 0 | 0 | 0 |
| 1964 | D | 2 | 1 | 4 | 4 | 32 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1965 | W | 1 | 3 | 6 | 7 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1966 | BN | 2 | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1967 | W | 2 | 3 | 3 | 4 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 |
| 1968 | BN | 0 | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1969 | W | 1 | 3 | 5 | 5 | 0 | 2 | 0 | 0 | 16 | 0 | 0 | 0 |
| 1970 | W | 3 | 3 | 0 | 0 | 32 | 0 | 0 | 0 | 17 | 3 | 0 | 0 |
| 1971 | W | 2 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1972 | BN | 3 | 3 | 2 | 4 | 17 | 2 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1973 | AN | 1 | 3 | 5 | 6 | 28 | 0 | 0 | 0 | 22 | 3 | 0 | 0 |
| 1974 | W | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1975 | W | 3 | 3 | 2 | 5 | 32 | 0 | 0 | 0 | 16 | 0 | 0 | 0 |
| 1976 | C | 3 | 3 | 2 | 5 | 23 | 2 | 0 | 0 | 35 | 3 | 0 | 0 |
| 1977 | C | 1 | 2 | 5 | 5 | 31 | 2 | 2 | 37 | 48 | 3 | 0 | 0 |
| 1978 | AN | 3 | 4 | 6 | 8 | 55 | 2 | 0 | 0 | 43 | 3 | 0 | 0 |

**Table C-24. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Chinook Salmon at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 3 | 3 | 3 | 5 | 28 | 0 | 0 | 0 | 25 | 3 | 0 | 0 |
| 1980 | AN | 2 | 3 | 3 | 5 | 23 | 2 | 0 | 0 | 22 | 3 | 0 | 0 |
| 1981 | D | 3 | 3 | 3 | 5 | 16 | 0 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1982 | W | 2 | 2 | 6 | 6 | 44 | 2 | 0 | 0 | 15 | 0 | 0 | 0 |
| 1983 | W | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 17 | 3 | 0 | 0 |
| 1985 | D | 2 | 2 | 4 | 5 | 33 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1986 | W | 2 | 2 | 6 | 7 | 46 | 0 | 0 | 0 | 16 | 3 | 0 | 0 |
| 1987 | D | 2 | 2 | 4 | 5 | 28 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1988 | C | 1 | 2 | 6 | 7 | 44 | 2 | 0 | 0 | 26 | 3 | 0 | 0 |
| 1989 | D | 1 | 1 | 6 | 8 | 29 | 2 | 0 | 0 | 27 | 3 | 0 | 0 |
| 1990 | C | 1 | 4 | 6 | 3 | 28 | 1 | 0 | 0 | 40 | 3 | 0 | 0 |
| 1991 | C | 3 | 4 | 4 | 8 | 55 | 2 | 2 | 0 | 48 | 3 | 0 | 0 |
| 1992 | C | 3 | 4 | 4 | 8 | 53 | 1 | 0 | 0 | 48 | 3 | 0 | 0 |
| 1993 | AN | 3 | 4 | 6 | 8 | 22 | 2 | 0 | 0 | 24 | 3 | 0 | 0 |
| 1994 | C | 2 | 3 | 5 | 5 | 0 | 2 | 0 | 0 | 48 | 3 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 2 | 2 | 4 | 5 | 26 | 1 | 0 | 1 | 26 | 2 | 0 | 0 |
| **Max** | | 3 | 4 | 6 | 8 | 55 | 2 | 2 | 37 | 48 | 3 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 2 | 2 | 3 | 3 | 19 | 0 | 0 | 0 | 19 | 1 | 0 | 0 |
| Above Normal | AN | 2 | 3 | 3 | 6 | 27 | 1 | 0 | 0 | 24 | 3 | 0 | 0 |
| Below Normal | BN | 2 | 3 | 4 | 5 | 23 | 0 | 0 | 0 | 26 | 3 | 0 | 0 |
| Dry | D | 2 | 2 | 5 | 6 | 32 | 1 | 0 | 0 | 27 | 3 | 0 | 0 |
| Critical | C | 2 | 2 | 5 | 6 | 32 | 2 | 0 | 3 | 40 | 3 | 0 | 0 |

**Table C-25. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 728 | 1 | 12 | 2 |
| 1923 | BN | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 816 | 205 | 12 | 2 |
| 1924 | C | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 895 | 208 | 12 | 2 |
| 1925 | D | 0 | 0 | 0 | 2 | 4 | 1 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1926 | D | 0 | 0 | 0 | 2 | 4 | 1 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1927 | W | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 533 | 197 | 12 | 2 |
| 1928 | AN | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 728 | 200 | 12 | 2 |
| 1929 | C | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1,142 | 208 | 12 | 2 |
| 1930 | D | 0 | 0 | 0 | 2 | 4 | 2 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1931 | C | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1,593 | 208 | 12 | 2 |
| 1932 | D | 1 | 0 | 0 | 2 | 4 | 1 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1933 | C | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 1,593 | 208 | 12 | 2 |
| 1934 | C | 0 | 0 | 0 | 2 | 4 | 2 | 0 | 0 | 1,090 | 208 | 12 | 2 |
| 1935 | BN | 1 | 0 | 0 | 2 | 4 | 0 | 2 | 0 | 821 | 205 | 12 | 2 |
| 1936 | BN | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1937 | BN | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1,429 | 205 | 12 | 2 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,303 | 197 | 12 | 2 |
| 1939 | D | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 879 | 208 | 12 | 1 |
| 1940 | AN | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 805 | 200 | 12 | 2 |
| 1941 | W | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 420 | 0 | 12 | 2 |
| 1942 | W | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 507 | 0 | 12 | 2 |
| 1943 | W | 1 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 537 | 0 | 12 | 2 |
| 1944 | D | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1945 | BN | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1947 | D | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1948 | BN | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1949 | D | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 879 | 208 | 12 | 2 |

**Table C-25. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | BN | 0 | 0 | 0 | 2 | 4 | 2 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1951 | AN | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 727 | 200 | 12 | 2 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1,303 | 0 | 12 | 2 |
| 1953 | W | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 533 | 197 | 12 | 2 |
| 1954 | AN | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 724 | 200 | 12 | 2 |
| 1955 | D | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1956 | W | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 530 | 0 | 12 | 2 |
| 1957 | AN | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 709 | 200 | 12 | 2 |
| 1958 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 237 | 0 | 12 | 2 |
| 1959 | BN | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 821 | 205 | 12 | 1 |
| 1960 | D | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1961 | D | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 0 | 879 | 208 | 12 | 2 |
| 1962 | BN | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 821 | 205 | 12 | 1 |
| 1963 | W | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 484 | 0 | 12 | 2 |
| 1964 | D | 1 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 879 | 208 | 7 | 1 |
| 1965 | W | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 529 | 197 | 12 | 2 |
| 1966 | BN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1967 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1,303 | 0 | 12 | 2 |
| 1968 | BN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 821 | 205 | 12 | 1 |
| 1969 | W | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 537 | 0 | 12 | 2 |
| 1970 | W | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 549 | 197 | 12 | 2 |
| 1971 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 539 | 197 | 12 | 2 |
| 1972 | BN | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 821 | 205 | 12 | 1 |
| 1973 | AN | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 727 | 200 | 12 | 2 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 534 | 197 | 12 | 2 |
| 1975 | W | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 529 | 0 | 12 | 2 |
| 1976 | C | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 1,144 | 208 | 12 | 1 |
| 1977 | C | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 85 | 1,593 | 208 | 12 | 2 |

**Table C-25. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Splittail at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1978 | AN | 1 | 0 | 0 | 2 | 4 | 2 | 0 | 0 | 1,414 | 200 | 12 | 2 |
| 1979 | BN | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 821 | 205 | 12 | 2 |
| 1980 | AN | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 715 | 200 | 12 | 2 |
| 1981 | D | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 879 | 208 | 11 | 2 |
| 1982 | W | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 0 | 489 | 0 | 12 | 2 |
| 1983 | W | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 457 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 548 | 197 | 12 | 2 |
| 1985 | D | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 879 | 208 | 7 | 1 |
| 1986 | W | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 538 | 197 | 12 | 2 |
| 1987 | D | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 879 | 208 | 12 | 1 |
| 1988 | C | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 0 | 866 | 208 | 12 | 2 |
| 1989 | D | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 879 | 208 | 12 | 1 |
| 1990 | C | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 1,318 | 208 | 12 | 2 |
| 1991 | C | 1 | 0 | 0 | 2 | 4 | 2 | 2 | 0 | 1,593 | 208 | 12 | 2 |
| 1992 | C | 1 | 0 | 0 | 2 | 4 | 1 | 0 | 0 | 1,593 | 208 | 12 | 2 |
| 1993 | AN | 1 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 805 | 200 | 12 | 2 |
| 1994 | C | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1,593 | 208 | 12 | 2 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 866 | 168 | 11 | 2 |
| **Max** | | 1 | 0 | 0 | 2 | 4 | 2 | 2 | 85 | 1,593 | 208 | 12 | 2 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 237 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 616 | 84 | 11 | 2 |
| Above Normal | AN | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 808 | 180 | 12 | 2 |
| Below Normal | BN | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 864 | 205 | 12 | 2 |
| Dry | D | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 879 | 208 | 11 | 2 |
| Critical | C | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 7 | 1,335 | 208 | 12 | 2 |

**Table C-26. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table C-26. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table C-26. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Steelhead at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table C-27. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98,502 | 195 | 0 | 0 |
| 1923 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110,363 | 72,572 | 0 | 0 |
| 1924 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121,032 | 73,876 | 0 | 0 |
| 1925 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1926 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1927 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,059 | 69,864 | 0 | 0 |
| 1928 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98,463 | 70,890 | 0 | 0 |
| 1929 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 154,507 | 73,876 | 0 | 0 |
| 1930 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1931 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215,555 | 73,876 | 0 | 0 |
| 1932 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1933 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215,555 | 73,876 | 0 | 0 |
| 1934 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147,521 | 73,876 | 0 | 0 |
| 1935 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 449 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1936 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,024 | 72,572 | 0 | 0 |
| 1937 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 193,410 | 72,572 | 0 | 0 |
| 1938 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176,318 | 69,864 | 0 | 0 |
| 1939 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1940 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108,918 | 70,890 | 0 | 0 |
| 1941 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56,776 | 0 | 0 | 0 |
| 1942 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 68,541 | 0 | 0 | 0 |
| 1943 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,657 | 0 | 0 | 0 |
| 1944 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1945 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1946 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1947 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1948 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1949 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1950 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |

**Table C-27. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98,306 | 70,890 | 0 | 0 |
| 1952 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176,318 | 0 | 0 | 0 |
| 1953 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,102 | 69,864 | 0 | 0 |
| 1954 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97,968 | 70,890 | 0 | 0 |
| 1955 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1956 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71,758 | 0 | 0 | 0 |
| 1957 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95,913 | 70,890 | 0 | 0 |
| 1958 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32,004 | 0 | 0 | 0 |
| 1959 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1960 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1961 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1962 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1963 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65,448 | 0 | 0 | 0 |
| 1964 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1965 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71,631 | 69,864 | 0 | 0 |
| 1966 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1967 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176,318 | 0 | 0 | 0 |
| 1968 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1969 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,682 | 0 | 0 | 0 |
| 1970 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74,305 | 69,864 | 0 | 0 |
| 1971 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,954 | 69,864 | 0 | 0 |
| 1972 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1973 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98,420 | 70,890 | 0 | 0 |
| 1974 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,295 | 69,864 | 0 | 0 |
| 1975 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71,540 | 0 | 0 | 0 |
| 1976 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 154,846 | 73,876 | 0 | 0 |
| 1977 | C | 0 | 0 | 0 | 0 | 0 | 0 | 418 | 15,681 | 215,555 | 73,876 | 0 | 0 |
| 1978 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 191,285 | 70,890 | 0 | 0 |

**Table C-27. Index of Estimated Net Fish Entrainment/Impingement Losses for Larval Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111,043 | 72,572 | 0 | 0 |
| 1980 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96,801 | 70,890 | 0 | 0 |
| 1981 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1982 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66,156 | 0 | 0 | 0 |
| 1983 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61,789 | 0 | 0 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74,123 | 69,864 | 0 | 0 |
| 1985 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1986 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72,785 | 69,864 | 0 | 0 |
| 1987 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1988 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117,168 | 73,876 | 0 | 0 |
| 1989 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| 1990 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 178,377 | 73,876 | 0 | 0 |
| 1991 | C | 0 | 0 | 0 | 0 | 0 | 0 | 325 | 0 | 215,555 | 73,876 | 0 | 0 |
| 1992 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215,555 | 73,876 | 0 | 0 |
| 1993 | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108,918 | 70,890 | 0 | 0 |
| 1994 | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215,555 | 73,876 | 0 | 0 |
| | | | | | | | | | | | | | |
| **Average** | | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 215 | 117,132 | 59,610 | 0 | 0 |
| **Max** | | 0 | 0 | 0 | 0 | 0 | 0 | 449 | 15,681 | 215,555 | 73,876 | 0 | 0 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32,004 | 0 | 0 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83,360 | 29,942 | 0 | 0 |
| Above Normal | AN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 109,349 | 63,820 | 0 | 0 |
| Below Normal | BN | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 116,877 | 72,572 | 0 | 0 |
| Dry | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118,971 | 73,876 | 0 | 0 |
| Critical | C | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 1,307 | 180,565 | 73,876 | 0 | 0 |

**Table C-28. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1922 | AN | 42 | 20 | 0 | 49 | 0 | 0 | 0 | 0 | 2,393 | 5 | 262 | 92 |
| 1923 | BN | 70 | 67 | 25 | 0 | 0 | 0 | 0 | 0 | 2,681 | 1,801 | 262 | 92 |
| 1924 | C | 57 | 44 | 45 | 54 | 26 | 20 | 0 | 0 | 2,941 | 1,834 | 263 | 69 |
| 1925 | D | 27 | 57 | 53 | 75 | 91 | 9 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1926 | D | 32 | 25 | 40 | 70 | 76 | 7 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1927 | W | 43 | 78 | 50 | 69 | 71 | 0 | 0 | 0 | 1,751 | 1,734 | 259 | 90 |
| 1928 | AN | 52 | 50 | 32 | 43 | 53 | 0 | 0 | 0 | 2,392 | 1,759 | 262 | 92 |
| 1929 | C | 47 | 60 | 44 | 51 | 26 | 18 | 0 | 0 | 3,754 | 1,834 | 263 | 83 |
| 1930 | D | 24 | 21 | 53 | 75 | 91 | 16 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1931 | C | 24 | 21 | 37 | 66 | 29 | 16 | 0 | 0 | 5,237 | 1,834 | 263 | 95 |
| 1932 | D | 85 | 79 | 53 | 75 | 87 | 7 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1933 | C | 56 | 39 | 50 | 68 | 76 | 0 | 0 | 0 | 5,237 | 1,834 | 263 | 95 |
| 1934 | C | 30 | 20 | 53 | 75 | 91 | 20 | 0 | 0 | 3,584 | 1,834 | 263 | 95 |
| 1935 | BN | 62 | 79 | 53 | 75 | 91 | 0 | 5 | 0 | 2,698 | 1,801 | 262 | 92 |
| 1936 | BN | 53 | 45 | 45 | 54 | 47 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 92 |
| 1937 | BN | 48 | 36 | 45 | 55 | 49 | 14 | 0 | 0 | 4,699 | 1,801 | 262 | 92 |
| 1938 | W | 44 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 4,284 | 1,734 | 259 | 90 |
| 1939 | D | 80 | 61 | 17 | 43 | 37 | 0 | 0 | 0 | 2,891 | 1,834 | 263 | 45 |
| 1940 | AN | 27 | 41 | 48 | 70 | 18 | 12 | 0 | 0 | 2,646 | 1,759 | 262 | 92 |
| 1941 | W | 35 | 37 | 44 | 0 | 39 | 0 | 0 | 0 | 1,379 | 0 | 259 | 90 |
| 1942 | W | 63 | 61 | 12 | 28 | 49 | 0 | 0 | 0 | 1,665 | 0 | 259 | 90 |
| 1943 | W | 80 | 60 | 16 | 32 | 54 | 12 | 0 | 0 | 1,765 | 0 | 259 | 90 |
| 1944 | D | 46 | 34 | 32 | 43 | 50 | 0 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1945 | BN | 41 | 65 | 50 | 70 | 74 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 92 |
| 1946 | BN | 45 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 68 |
| 1947 | D | 48 | 70 | 30 | 56 | 25 | 12 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1948 | BN | 30 | 42 | 50 | 70 | 48 | 5 | 0 | 0 | 2,698 | 1,801 | 262 | 92 |
| 1949 | D | 58 | 70 | 29 | 56 | 0 | 16 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1950 | BN | 37 | 45 | 50 | 52 | 76 | 14 | 0 | 0 | 2,698 | 1,801 | 262 | 92 |

**Table C-28. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951 | AN | 84 | 69 | 0 | 54 | 58 | 0 | 0 | 0 | 2,388 | 1,759 | 262 | 76 |
| 1952 | W | 48 | 67 | 44 | 0 | 0 | 12 | 0 | 0 | 4,284 | 0 | 259 | 90 |
| 1953 | W | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,752 | 1,734 | 259 | 90 |
| 1954 | AN | 46 | 61 | 17 | 43 | 55 | 12 | 0 | 0 | 2,380 | 1,759 | 262 | 92 |
| 1955 | D | 54 | 67 | 44 | 50 | 53 | 16 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1956 | W | 35 | 41 | 50 | 70 | 72 | 0 | 0 | 0 | 1,743 | 0 | 259 | 90 |
| 1957 | AN | 80 | 61 | 17 | 43 | 54 | 0 | 0 | 0 | 2,330 | 1,759 | 262 | 83 |
| 1958 | W | 46 | 67 | 33 | 47 | 0 | 0 | 0 | 0 | 778 | 0 | 259 | 90 |
| 1959 | BN | 80 | 61 | 17 | 41 | 0 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 55 |
| 1960 | D | 32 | 28 | 45 | 56 | 39 | 7 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1961 | D | 47 | 47 | 50 | 70 | 69 | 15 | 0 | 0 | 2,891 | 1,834 | 263 | 95 |
| 1962 | BN | 42 | 40 | 50 | 70 | 76 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 37 |
| 1963 | W | 20 | 70 | 45 | 49 | 53 | 0 | 0 | 0 | 1,590 | 0 | 259 | 90 |
| 1964 | D | 59 | 17 | 32 | 41 | 53 | 16 | 0 | 0 | 2,891 | 1,834 | 164 | 58 |
| 1965 | W | 30 | 62 | 50 | 70 | 0 | 0 | 0 | 0 | 1,740 | 1,734 | 259 | 90 |
| 1966 | BN | 52 | 61 | 14 | 42 | 0 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 70 |
| 1967 | W | 45 | 70 | 28 | 38 | 0 | 0 | 0 | 0 | 4,284 | 0 | 259 | 90 |
| 1968 | BN | 0 | 61 | 17 | 40 | 0 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 42 |
| 1969 | W | 38 | 70 | 45 | 43 | 0 | 12 | 0 | 0 | 1,766 | 0 | 259 | 90 |
| 1970 | W | 80 | 61 | 0 | 0 | 53 | 0 | 0 | 0 | 1,805 | 1,734 | 259 | 90 |
| 1971 | W | 48 | 61 | 12 | 42 | 0 | 0 | 0 | 0 | 1,773 | 1,734 | 259 | 90 |
| 1972 | BN | 80 | 61 | 16 | 38 | 29 | 14 | 0 | 0 | 2,698 | 1,801 | 262 | 55 |
| 1973 | AN | 25 | 65 | 45 | 56 | 46 | 0 | 0 | 0 | 2,391 | 1,759 | 262 | 92 |
| 1974 | W | 36 | 67 | 26 | 0 | 0 | 0 | 0 | 0 | 1,757 | 1,734 | 259 | 90 |
| 1975 | W | 80 | 61 | 16 | 44 | 53 | 0 | 0 | 0 | 1,738 | 0 | 259 | 90 |
| 1976 | C | 80 | 61 | 17 | 44 | 38 | 20 | 0 | 0 | 3,762 | 1,834 | 263 | 56 |
| 1977 | C | 26 | 52 | 46 | 47 | 51 | 20 | 5 | 318 | 5,237 | 1,834 | 263 | 95 |
| 1978 | AN | 85 | 79 | 53 | 75 | 91 | 12 | 0 | 0 | 4,648 | 1,759 | 262 | 92 |

**Table C-28. Index of Estimated Net Fish Entrainment/Impingement Losses for Juvenile Striped Bass at Middle River Intake Under Plan 3 Compared to the No-Action Plan (continued)**

| Water Year | Year Type | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | BN | 83 | 66 | 28 | 47 | 47 | 0 | 0 | 0 | 2,698 | 1,801 | 262 | 92 |
| 1980 | AN | 43 | 70 | 29 | 48 | 37 | 12 | 0 | 0 | 2,352 | 1,759 | 262 | 92 |
| 1981 | D | 83 | 67 | 29 | 49 | 27 | 0 | 0 | 0 | 2,891 | 1,834 | 241 | 95 |
| 1982 | W | 44 | 37 | 50 | 53 | 73 | 12 | 0 | 0 | 1,607 | 0 | 259 | 90 |
| 1983 | W | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,501 | 0 | 5 | 0 |
| 1984 | W | 0 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 1,801 | 1,734 | 259 | 90 |
| 1985 | D | 46 | 33 | 32 | 44 | 55 | 16 | 0 | 0 | 2,891 | 1,834 | 160 | 62 |
| 1986 | W | 52 | 53 | 50 | 70 | 76 | 0 | 0 | 0 | 1,768 | 1,734 | 259 | 90 |
| 1987 | D | 65 | 41 | 32 | 43 | 46 | 16 | 0 | 0 | 2,891 | 1,834 | 263 | 56 |
| 1988 | C | 28 | 50 | 50 | 70 | 73 | 20 | 0 | 0 | 2,847 | 1,834 | 263 | 91 |
| 1989 | D | 22 | 23 | 53 | 75 | 47 | 16 | 0 | 0 | 2,891 | 1,834 | 263 | 49 |
| 1990 | C | 42 | 78 | 50 | 24 | 46 | 11 | 0 | 0 | 4,334 | 1,834 | 263 | 95 |
| 1991 | C | 85 | 79 | 38 | 75 | 91 | 20 | 4 | 0 | 5,237 | 1,834 | 263 | 95 |
| 1992 | C | 85 | 79 | 38 | 75 | 87 | 11 | 0 | 0 | 5,237 | 1,834 | 263 | 95 |
| 1993 | AN | 85 | 79 | 53 | 75 | 36 | 12 | 0 | 0 | 2,646 | 1,759 | 262 | 92 |
| 1994 | C | 56 | 56 | 44 | 51 | 0 | 12 | 0 | 0 | 5,237 | 1,834 | 263 | 95 |
| | | | | | | | | | | | | | |
| **Average** | | 51 | 53 | 34 | 48 | 43 | 7 | 0 | 4 | 2,846 | 1,479 | 255 | 84 |
| **Max** | | 85 | 79 | 53 | 75 | 91 | 20 | 5 | 318 | 5,237 | 1,834 | 263 | 95 |
| **Min** | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 778 | 0 | 5 | 0 |
| **Average by Year Type** | | | | | | | | | | | | | |
| Wet | W | 49 | 52 | 27 | 31 | 31 | 2 | 0 | 0 | 2,025 | 743 | 247 | 85 |
| Above Normal | AN | 57 | 60 | 29 | 55 | 45 | 6 | 0 | 0 | 2,657 | 1,584 | 262 | 90 |
| Below Normal | BN | 52 | 56 | 33 | 47 | 38 | 3 | 0 | 0 | 2,840 | 1,801 | 262 | 76 |
| Dry | D | 51 | 46 | 39 | 57 | 53 | 11 | 0 | 0 | 2,891 | 1,834 | 249 | 82 |
| Critical | C | 51 | 53 | 43 | 58 | 53 | 16 | 1 | 27 | 4,387 | 1,834 | 263 | 88 |

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