

Stanislaus, Tuolumne, and Merced Working Group Meeting

2nd Revised Draft Initial Biological Goals



Division of Water Rights, April 21, 2023

Welcoming Remarks

- Staff introductions
- This meeting is being recorded
- The presentation slides and the recording will be available from the State Water Board's FTP site - please contact STM-WorkingGroup@waterboards.ca.gov for credentials
- For more information visit the Lower San Joaquin River Flows Implementation Activities webpage: bit.ly/baydelta_LSJ
- Need assistance or have questions
 - Facilitating today is Ellen Blair (ICF International consultant)
 - Raise hand, or
 - Email STM-WorkingGroup@waterboards.ca.gov

Welcoming Remarks – Agenda

- Welcome, meeting objectives, and background
- Summary of proposed biological goals and facilitated discussion between STM members
- Next steps
- General comments
- Closing remarks

STM Working Group Meeting Attendees

- California Department of Fish & Wildlife
- California Farm Bureau
- Central Sierra Environmental Resource Center
- City of Modesto
- Department of the Interior, US Bureau of Reclamation
- Friends of the River
- Friant Water Authority
- League of Women Voters of California
- Merced Irrigation District
- Merced River Conservation Committee
- Modesto Irrigation District (MID)
- San Francisco Public Utilities Commission
- San Luis & Delta-Mendota Water Authority
- South San Joaquin Irrigation District
- State Water Board
- TID, MID, and San Francisco Public Utilities Commission
- Tuolumne County Water Agency
- Tuolumne River Trust
- Turlock Irrigation District (TID)
- US Fish & Wildlife Service
- Valley Water

Meeting Objectives

- Review and discuss proposed biological goals in the 2nd Revised Draft Report
- Next steps for Board consideration of action on biological goals

Background

- 2018 Bay-Delta Plan & Lower San Joaquin River Flows
 - Requires the development of biological goals for salmonids
- Biological Goals
 - Quantitative metrics for four key goals: abundance, productivity, genetic and life history diversity, and spatial extent
 - Used to inform: adaptive methods, the San Joaquin River Monitoring and Evaluation Program, evaluation of the effectiveness of the program of implementation, and future changes to the Bay-Delta Plan
 - Will not be used to assess water right holders' compliance with the Bay-Delta Plan
- Stanislaus, Tuolumne, and Merced (STM) Working Group
 - The State Water Board will establish a STM Working Group to assist with the implementation, monitoring and effectiveness assessment of the February through June LSJR flows
 - State Water Board will seek recommendations on biological goals from the STM Working Group and other interested persons

Background

- 2018 Bay-Delta Plan & Lower San Joaquin River Flows
 - Requires the development of Biological Goals
- 2019 Draft Biological Goals
 - STM Working Group Coordinator
 - Public comment and recommendations
- 2022 Revised Draft Biological Goals
 - Initial membership of STM Working Group
 - Public comment and recommendations
- 2023 2nd Revised Draft Biological Goals
 - April 10, 2023, released for public review
- STM Working Group Meetings
 - November 21, 2022
 - December 7, 2022
 - March 9, 2023
 - April 21, 2023 (today's meeting)

Facilitated Discussion Format

- Staff will review the proposed biological goals
- Facilitator will solicit discussion among and between STM members
 - Is there agreement with the proposed goals?
 - Are there questions about the goals or calculations?
 - Are there other comments?
- Non-STM members will have a chance to provide input
- Raise hand feature can be used to ask questions or identify interest in making a comment
- Keep comments on point and concise
 - Keep comments succinct and specific to the biological goals
 - Respect staff and fellow attendees, even if their ideas differ from yours

Bay-Delta Plan Requirements for Biological Goals

- Biological goals will specifically be developed for abundance, productivity, genetic and life history diversity, and spatial extent
- “The salmonid biological goals for this program of implementation will be specific to the LSJR and its tributaries and will contribute to meeting the overall goals for each population including the salmon doubling objective established in state and federal law.”
- “Biological goals should be specific, measurable, achievable, result-focused, and include a time frame for when they will be achieved.”
- “consistent with the best available science”
- Used to inform: adaptive methods, the San Joaquin River Monitoring and Evaluation Program, evaluation of the effectiveness of the program of implementation, and future changes to the Bay-Delta Plan

Role of Biological Goals

Table 1.1. Role and Use of Biological Goals

| Role of Biological Goal | Biological Goal/Goal Component |
|---|---|
| <p>Approving adaptive implementation adjustments due to expected or documented achievement, or furtherance of achievement, of goals, including:</p> <ul style="list-style-type: none"> • Change in required percent of unimpaired flow within the range of 30– 50% • Alternative flow schedule based on total 5-month volume equal to the required percent of unimpaired flow (flow budget) • Shift some of the flow budget to July– January | <ul style="list-style-type: none"> • Juvenile egg to confluence survival • Juvenile emigration timing at tributary confluence • Juvenile size class migration at tributary confluence • Juvenile production at tributary confluence |
| <p>Inform potential water diversion, water right, water quality, or other actions in the mainstem San Joaquin River and Delta to protect flows and habitat provided by LSJR flows or actions by other entities in furtherance of achieving the LSJR narrative flow or salmon protection objectives</p> | <ul style="list-style-type: none"> • Juvenile LSJR survival at Mossdale • Juvenile survival Mossdale to Chipps Island • Juvenile egg to confluence survival |
| <p>Inform adaptive methods to the extent that ability to reach goals is related to adaptive methods</p> | <ul style="list-style-type: none"> • All biological goals |
| <p>Evaluate effectiveness of program of implementation</p> | <ul style="list-style-type: none"> • All biological goals |
| <p>Evaluate effectiveness of SJRMEP</p> | <ul style="list-style-type: none"> • All biological goals |
| <p>Inform future changes to the Bay-Delta Plan</p> | <ul style="list-style-type: none"> • All biological goals |

Abundance Goal

Table 3.1. LSJR Fall-Run Chinook Salmon Escapement Goals

| River | Escapement Goal, measured as a 5-Year Running Average | Progress Assessment/Attainment Target |
|------------------|--|--|
| All | Positive generational trend in escapement, measured as a 5-year geometric mean | Assessed annually/when numeric abundance goals are met |
| Stanislaus River | 7,800 | Assessed annually/Year 15 achieve the goal |
| Tuolumne River | 15,500 | Assessed annually/Year 25 achieve the goal |
| Merced River | 7,300 | Assessed annually/Year 15 achieve the goal |

Productivity Goal

Table 3.2. LSJR Fall-Run Chinook Salmon Full Life Cycle Productivity Goals

| Productivity Metric | Goal, measured as a 5-year geometric mean | Progress Assessment/Attainment Target |
|---------------------|---|---|
| CRR Trend | Positive generational trend until a CRR > 1 is met | Assessed annually/when numeric productivity goals are met |
| Pre-Fishing CRR | Pre-Fishing CRR > 1 and > post-fishing CRR until abundance goals met and then sustained | Assessed annually/Year 10, achieve the goal |
| Post-Fishing CRR | Post-Fishing CRR > 1 until abundance goals met and then sustained CRR > 1 | Assessed annually/Year 10, achieve the goal |

Productivity Goal

Table 3.3. LSJR Fall-Run Chinook Salmon Juvenile Survival Goals

| Productivity Metric | Goal, measured as a 5-year geometric year | Progress Assessment/ Attainment Target |
|---|--|---|
| Juvenile Productivity Trend | Positive trend in juvenile survival until abundance goal is met, measured as a 5-year geometric mean | Until numeric abundance goals are met (year 15) |
| Freshwater juvenile Survival (egg to Chipps Island) | $\geq 1.5\%$ | Assessed annually/Year 5, achieve the goal |
| LSJR at Mossdale to Chipps Island (Through-Delta) Survival (SJDS) | $\geq 20\%$ | Assessed annually/Year 5, achieve the goal |
| Egg to tributary confluence with LSJR | $\geq 10\%$ | Assessed annually/Year 5, achieve the goal |

Productivity Goal

Table 3.4. LSJR Fall-Run Chinook Salmon Juvenile Production Goals

| Productivity Metric | Goal Per cohort year | Progress Assessment/ Attainment Target |
|---|-------------------------|---|
| Stanislaus River | | |
| Confluence Juvenile Production | 2,700,000 | Assessed annually on an ongoing basis |
| Delta exit (Chippis Island) Juvenile Production | 400,000 | Assessed annually on an ongoing basis |
| Tuolumne River | | |
| Confluence Juvenile Production | 4,700,000 | Assessed annually on an ongoing basis |
| Delta exit (Chippis Island) Juvenile Production | 700,000 | Assessed annually on an ongoing basis |
| Merced River | | |
| Confluence Juvenile Production | 2,200,000 | Assessed annually on an ongoing basis |
| Delta exit (Chippis Island) Juvenile Production | 300,000 | Assessed annually on an ongoing basis |

Genetic Diversity Goal

Table 3.8. LSJR Fall-Run Chinook Salmon pHOS Genetic Diversity Goals for the LSJR Basin

| Genetic Diversity Metric | Goal, measured as a 5-year running average | Progress Assessment/Attainment Target |
|--------------------------|---|---|
| pHOS | Decreasing trend, as a 5-year running average | Assessed annually/when the genetic diversity goal is met |
| pHOS | ≤ 15% | Assessed annually/Year 12 after beginning of implementation |
| pHOS | ≤ 10% | Assessed annually/Year 21 after beginning of implementation |

Life-History Diversity Goal

Table 3.9. LSJR Fall-Run Chinook Salmon Juvenile Emigration Timing Goals

| Juvenile Size Class* (Phenotype) | Positive Detection Each Week near Mouth of Each Tributary | Progress Assessment/ Attainment Target |
|-------------------------------------|--|---|
| Fry | Last week of January to second week of April | Assessed annually/Year 10, achieve the goal |
| Parr | First week of February to last week of May | Assessed annually/Year 10, achieve the goal |
| Smolt | Third week of February – first week of June | Assessed annually/Year 10, achieve the goal |

*Size classes are defined as fry < 55 millimeters (mm); parr 55 - 75 mm; smolt >75 mm

Life-History Diversity Goal

Table 3.10. LSJR Fall-Run Chinook Salmon Minimum Percentage for Different Size Classes* at Migration Goals for different water-year types. These are measured as 3-year running averages at the mouth of each tributary.

| | Below Normal, Dry, and Critical WYs | Progress Assessment/Attainment Target |
|--------------------------|-------------------------------------|---|
| Wet and Above Normal WYs | WYs | |
| Fry \geq 20% | Fry \geq 20% | Assessed annually/Year 12, achieve the goal |
| Parr \geq 20% | Parr \geq 30% | Assessed annually/Year 12, achieve the goal |
| Smolt \geq 10% | Smolt \geq 20% | Assessed annually/Year 12, achieve the goal |

* Size classes are defined as fry < 55 millimeters (mm); parr 55 - 75 mm; smolt >75 mm

Spatial Structure

The initial spatial structure biological goal in the LSJR is to achieve the abundance, productivity, and diversity goals on all three LSJR tributaries, the Stanislaus, Tuolumne, and Merced rivers.

Next Steps

- Board Technical Workshop May 3, 2023
- Written comments on the 2nd Revised Draft Initial Biological Goals Report due May 12, 2023
- Release Draft Final Initial Biological Goals Report
- Board Meeting consideration of approval (anticipated in summer 2023)

General Comments

Closing Remarks

Thank you all for attending.