

Pelagic Organism Decline

Seeking solutions to a complex challenge

Prepared for

SWRCB Pelagic Organism Decline Workshop

March 2007



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Presentation Overview

- POD Study Background and Implementation
- New Processes related the Delta
 - Reconsultation on Biological Opinions (OCAP)
 - Adaptive, near-time decision-making process
 - Bay Delta Conservation Plan
 - Delta Risk Management Study (DRMS)
 - Delta Vision
- CVP/ SWP Operational Issues
 - Status of fish actions this year
 - Environmental Water Account this year



POD Funding

■ POD Funding

- 2005: DWR and Reclamation provided \$1.7 million
- 2006: DWR and Reclamation provided \$3.6 million
- CALFED Science Program grants have funded \$2.2 million
- CALFED ERP Program funded \$700,000



POD Background

- Late 2004 - Interagency Ecological Program announces decline to agency directors – including SWRCB Executive Director
 - IEP forms POD Work team
 - Work will be reviewed by National Center for Environmental Analysis and Synthesis (NCEAS)
 - Next Summary due by end of 2007



Recent POD Summary and Action Plan

- March 2007 - Resources Agency releases Pelagic Fish Action Plan
 - Report documents the status of the ongoing analyses of possible causes
 - Suggested actions to consider
 - Food Web Actions, Habitat Improvements, Invasive Species, Water Project Operations, Other Actions
 - Collaborative effort involving:
 - DFG , DWR
 - USFWS, NMFS, USBR

New Processes Delta Processes



Biological Opinion Reconsultation (OCAP)

- Reclamation reinitiated consultation on the Biological Opinions (including) delta smelt in July 2006
 - DWR is part of the reconsultation process
 - 18 month process
 - During interim, DWR and Reclamation will continue to operate under existing biological opinions
 - Using real-time water operations decision-making process



Real-Time Water Operations Decision-Making

- Delta Smelt Working Group (DSWG) adaptive management process
 - Data Assessment Team (DAT) and the DSWG track real-time hydrologic and fishery conditions
 - DSWG reports on a weekly basis to DAT
 - DAT passes recommendations on to Water Operations Management Team (WOMT)
 - WOMT consists of:
 - Federal and State agencies that administer ESA
 - Water project operators

Bay Delta

Conservation Plan (BDCP)

- Goal – Conservation Plan under
 - State Natural Community Conservation Planning Act (NCCPA)
 - Federal Habitat Conservation Plan (HCP)
- Focus - Fish in the Delta – Aquatic NCCP and HCP unprecedented
- Funded by water and power interests in the Delta
 - Proportional conservation contributions in exchange for operational assurances under the ESA (section 10) and NCCP
- Planning Agreement - Signed Oct 2006
- Steering Committee meeting every two weeks
 - DWR, DFG, Resources, NMFS, USFWS, USBR, 6 water users, 6 NGOs, Mirant - Open public meetings
- Conceptual plan expected by the end of 2007

Delta Vision

- Multiple Threats to a sustainable Delta (DRMS).
 - Global Warming, Floods, Sea Level Rise, Earthquakes, Urbanization, Invasive Species
- Need to analyze all aspects of the Delta
 - Infrastructure, natural resources, land use, water resources
- Governor appointed 8-member Blue Ribbon Task Force
 - February 2007
- Findings and Recommendations on the sustainable management of the Delta
 - January 2008
- Strategic Plan to implement the Delta Vision
 - expected by October 31, 2008



2007 Operational Issues and the Environmental Water Account

- EWA target fishery actions ~ 300 TAF
- Current EWA actions this year to date ~ 160 TAF
- ~ 265 TAF of water purchased year-to-date
 - Carriage water requirements for any north of Delta purchases
- Ability to carry up to 100 TAF EWA debt into next year
- Tier III if needed to avoid Jeopardy

Recent SWP & CVP Operations

- Early 2007 Old and Middle River (OMR) flows were kept between -3,500 cfs and - 5,000 cfs
- Early March - 5,000 cfs OMR
 - Consistent with DSWG Recommendations

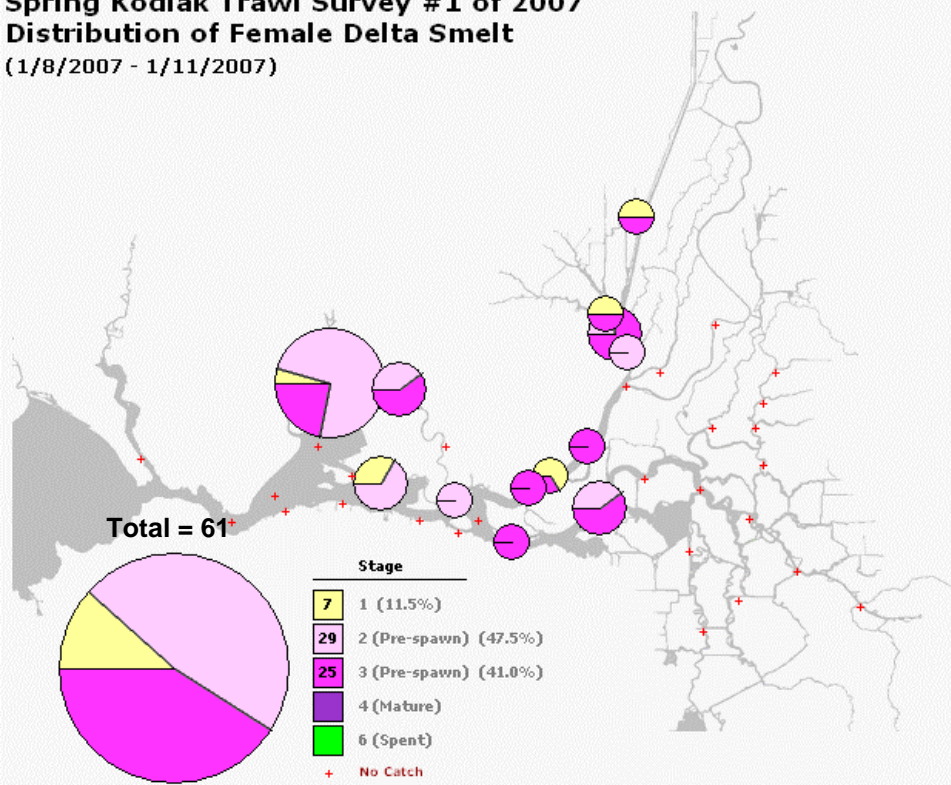


Current Conditions

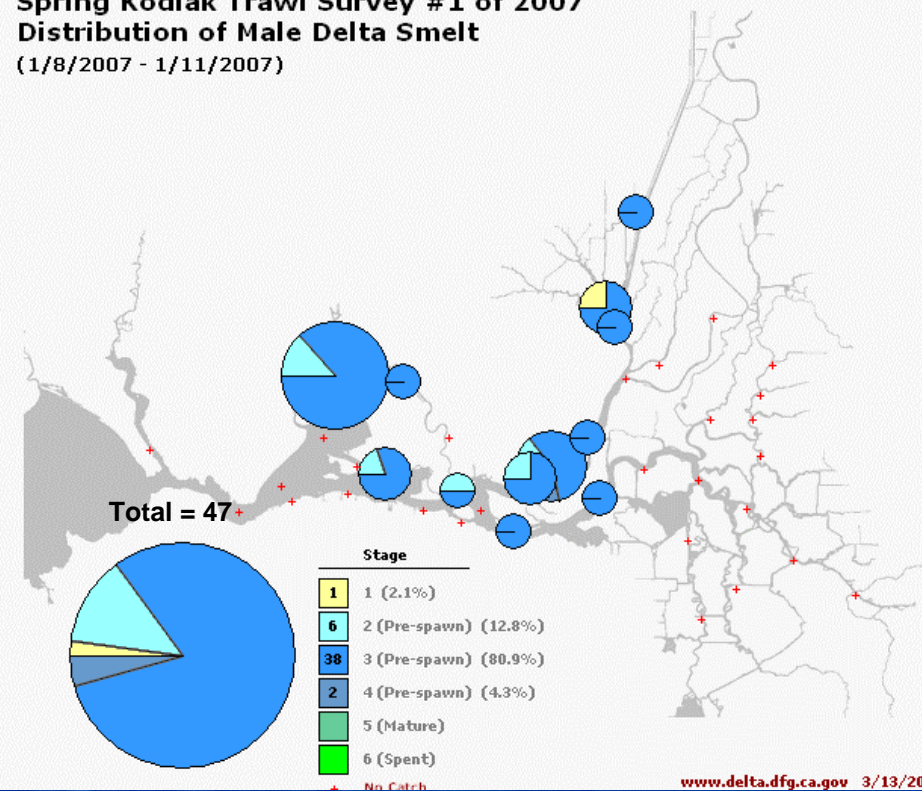
- Adult Smelt concentrated in Sacramento River and Cache Slough areas and Suisun Marsh
- Spawning just now beginning in small numbers
- No smelt found in the interior Delta
- 2007 Expanded smelt salvage to date at SWP/CVP
 - January = 0 (Reconsultation Level = 1,900)
 - February = 36 (Reconsultation Level = 1,700)
 - March = 0 (Reconsultation Level = 1,300)
- Larval Smelt in April and May are more free floating

January Adult Trawl Survey

Spring Kodiak Trawl Survey #1 of 2007
Distribution of Female Delta Smelt
(1/8/2007 - 1/11/2007)

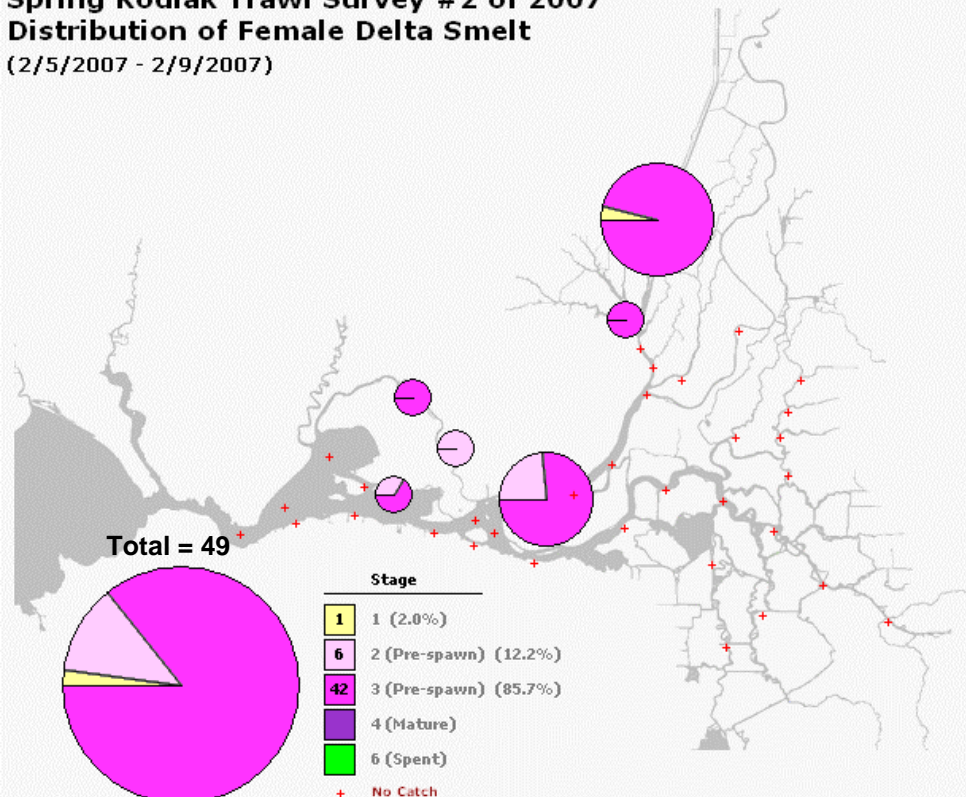


Spring Kodiak Trawl Survey #1 of 2007
Distribution of Male Delta Smelt
(1/8/2007 - 1/11/2007)

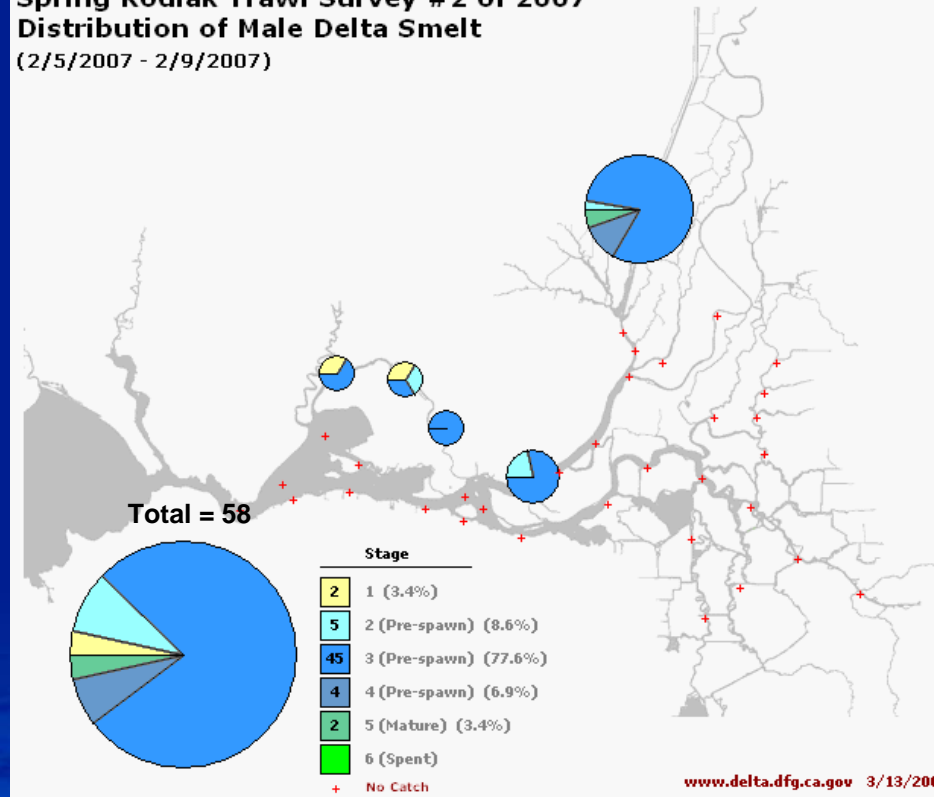


February Adult Trawl Survey

Spring Kodiak Trawl Survey #2 of 2007
Distribution of Female Delta Smelt
(2/5/2007 - 2/9/2007)

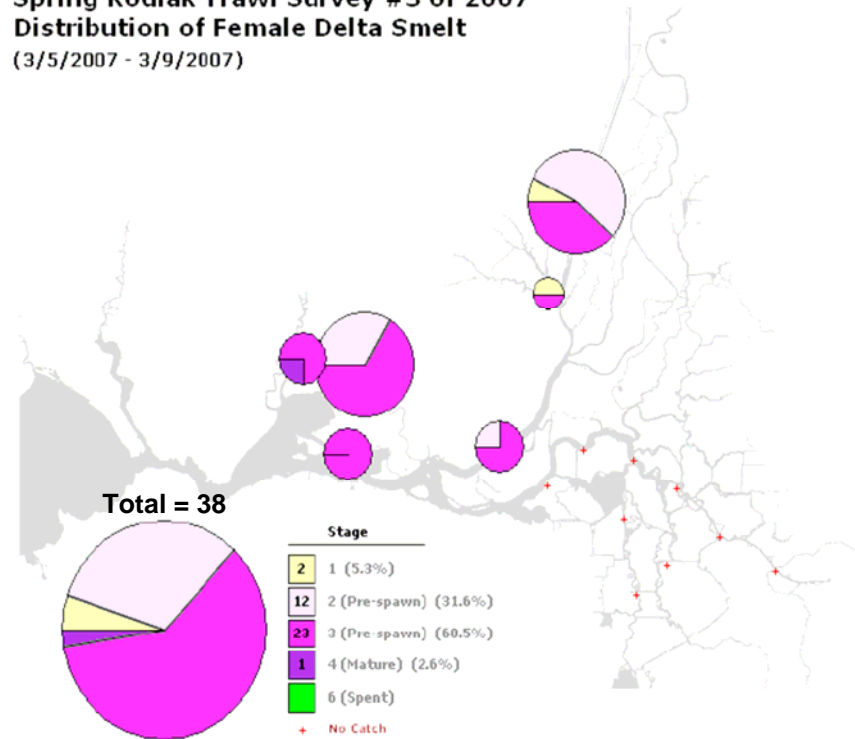


Spring Kodiak Trawl Survey #2 of 2007
Distribution of Male Delta Smelt
(2/5/2007 - 2/9/2007)

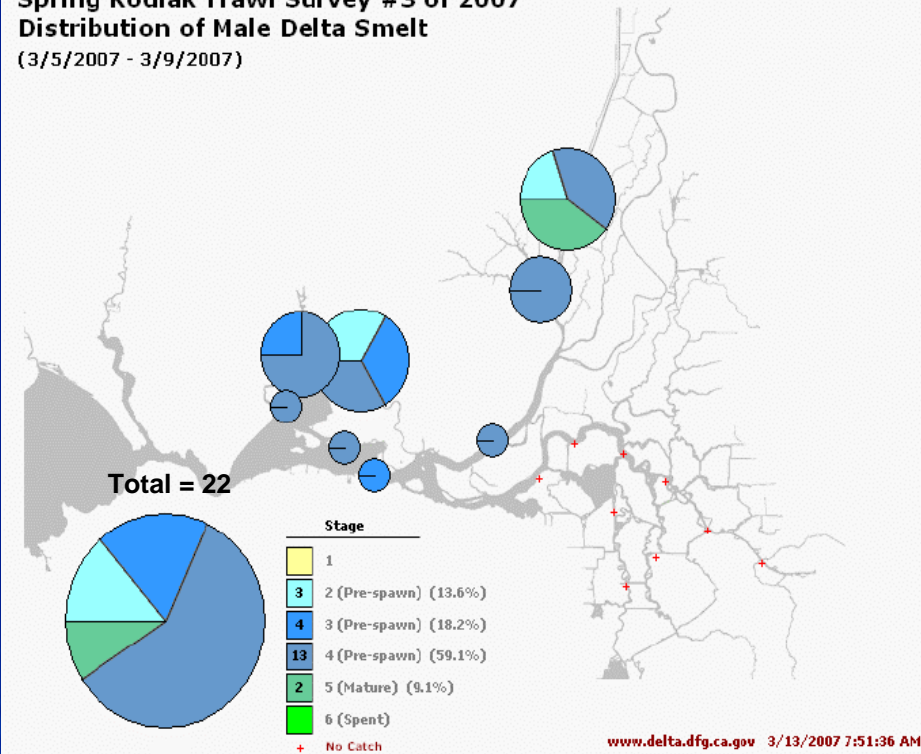


March Adult Trawl Survey

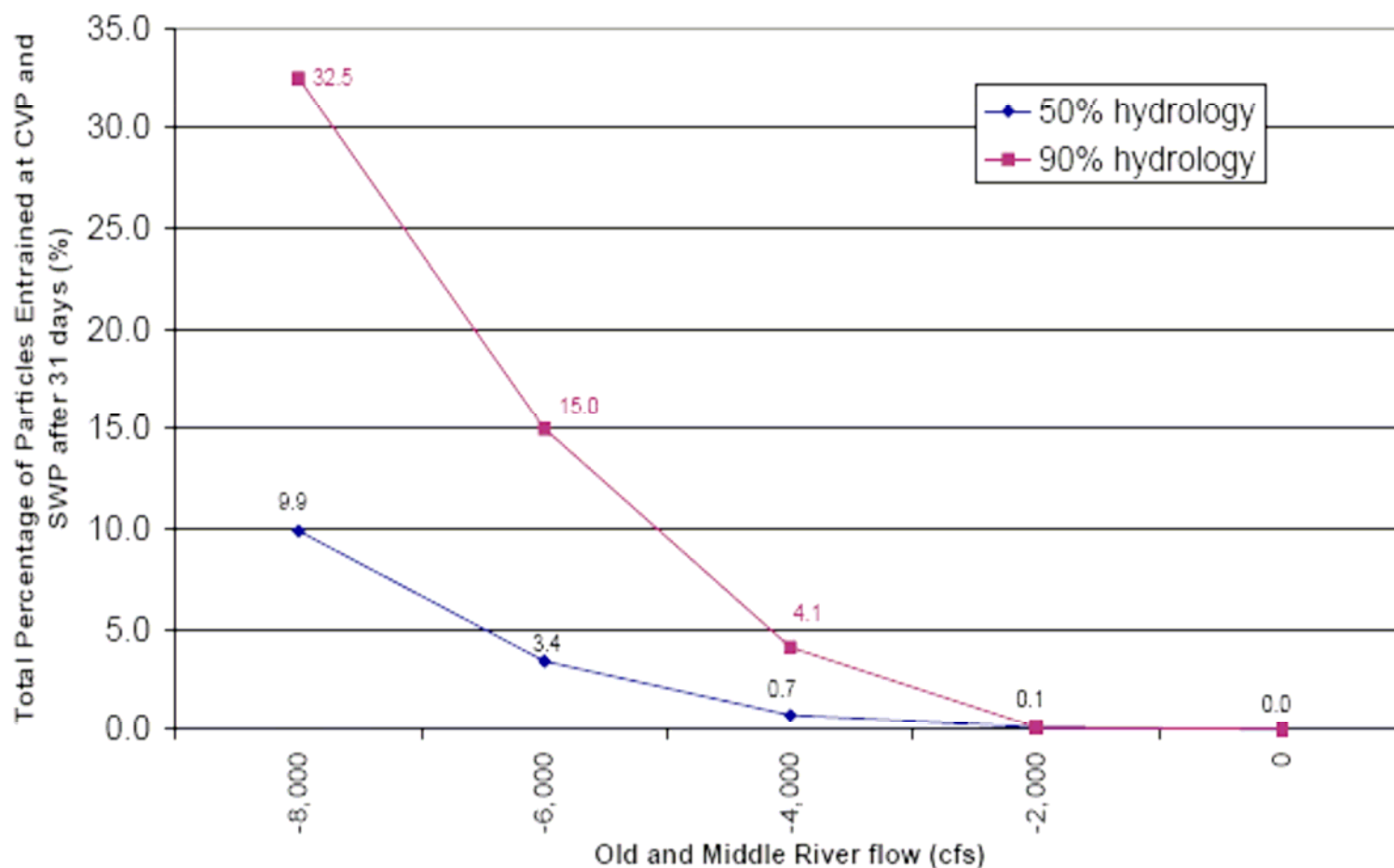
Spring Kodiak Trawl Survey #3 of 2007
Distribution of Female Delta Smelt
(3/5/2007 - 3/9/2007)



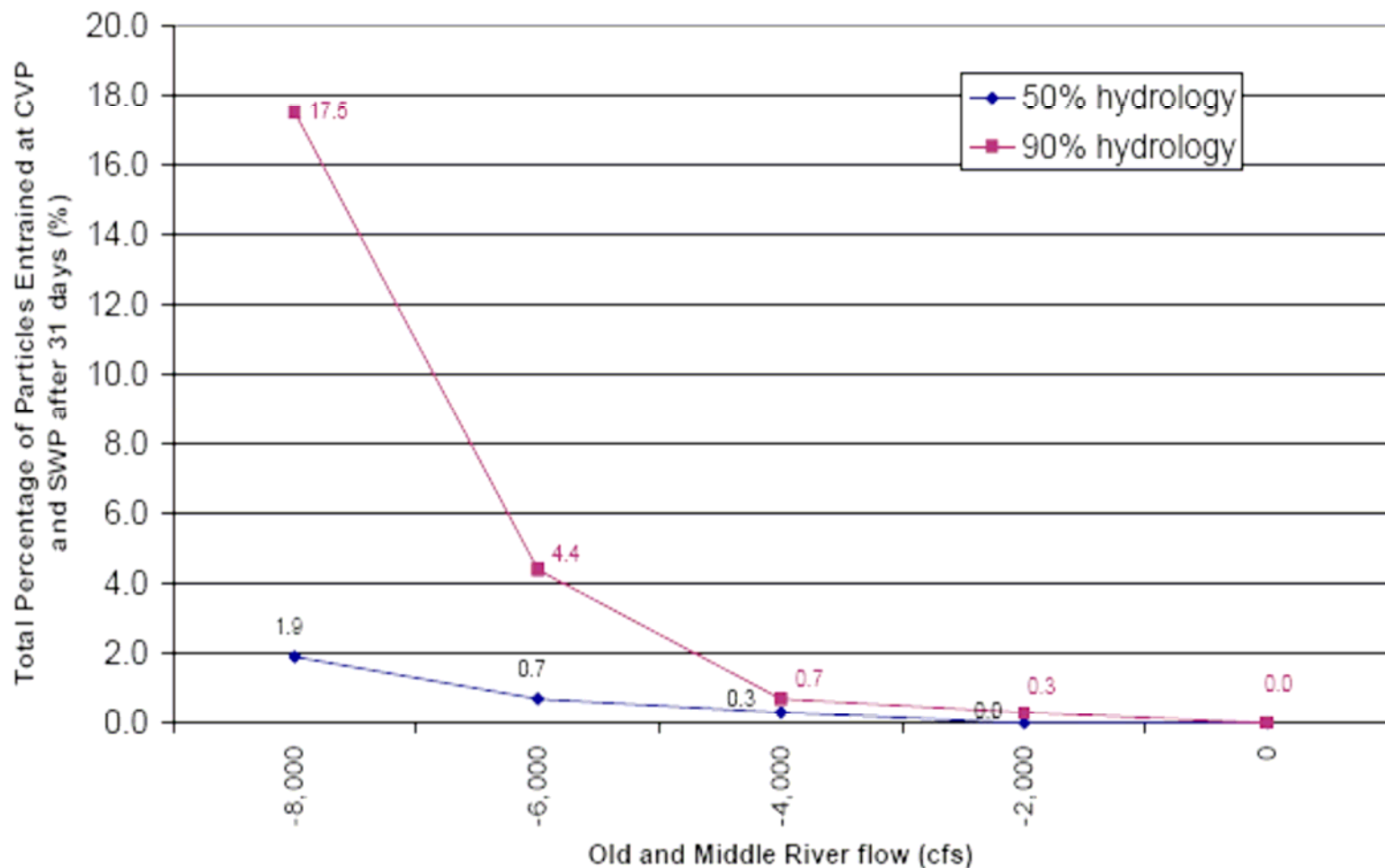
Spring Kodiak Trawl Survey #3 of 2007
Distribution of Male Delta Smelt
(3/5/2007 - 3/9/2007)



Total Particle Entrainment vs. OMR flow (for particles injected at Station 711, downstream of Cache Sl.)



Total Particle Entrainment vs. OMR flow (for particles injected at Station 704, near the confluence)



In Conclusion

- Resources and expertise allocated to finding answers to this unexpected decline
- Progress in understanding the factors contributing to the decline
- Still exploring and learning about the relative importance on various factors on the abundance of at risk fish species



DWR Recommendation

- DWR invites the SWRCB to participate in efforts to find answers to a changing Delta
 - POD investigations
 - BDCP
 - Delta Vision



DWR Recommendations

- SWRCB should not consider changes to the current Bay Delta WQCP until:
 - **POD investigations are synthesized**
 - Initial NCEAS Report Late 2007
 - Final Report 2008
 - **Reconsultation under Biological Opinions have been concluded**
 - **BDCP makes progress**

