Suisun Ecological Work Group Becomes a Project Work Team

Eliza Sater, DWR

In the 1995 Bay/Delta Plan, SWRCB directed DWR to convene a work group to evaluate the technical basis of the Suisun Marsh water quality objectives and their effects on beneficial uses. Consequently, in May 1995, the Suisun Ecological Work Group was formed to review the scientific basis of the Suisun Marsh channel water salinity standards and develop recommendations for comprehensive brackish marsh standards. Representatives from SWRCB, DWR, USBR, DFG, USEPA, USFWS, NMFS, Regional Water Quality Control Board, San Francisco Bay Conservation and Development Commission, Suisun Resources Conservation District, California Native Plant Society, Ducks Unlimited, California Waterfowl Association, San Francisco Estuary Institute, The Bay Institute, and Metropolitan Water District of Southern California have contributed technical expertise to the work group.

The Suisun Ecological Work Group, which meets monthly or bi-monthly, has recently become a project work team under the Interagency Program. As a project work team, we hope to increase public awareness of our activities and develop a broader peer review process. Heidi Bratovich (SWRCB) and Brenda Grewell (DWR) will co-chair the team.

Initial activities of the Suisun Ecological Work Group included developing background information on brackish marsh ecology, the history of Suisun Marsh, management of diked seasonal wetlands, the scientific basis for Decision 1485 Suisun Marsh standards, and identifying beneficial uses of the marsh.

Our first technical task since the initial investigations has been to evaluate water quality objectives for resources such as plants, wildlife, and fish. To facilitate this, the work group divided into four resource-specific subcommittees: Brackish Marsh Vegetation, Wildlife, Waterfowl, and Aquatic Habitat. Each subcommittee will evaluate effects of existing western marsh salinity standards (1995 Water Quality Control Plan and Order 95-6) on the resource being considered and develop recommendations for resource-specific water quality objectives, as well as for future studies and compliance monitoring programs. A fifth subcommittee is working in conjunction with DWR Suisun Marsh Planning to evaluate water quality and hydrology issues in the marsh.

The subcommittees began meeting independently in October 1995, produced work plans in February 1996, and are scheduled to complete their analyses by October 1997.

The next step will be to evaluate the impacts of resource-specific objectives and to develop appropriate multi-resource (ecosystem) water quality objectives. This process will be undertaken by the work group as a whole and is scheduled to be completed by October 1998, when the Suisun Ecological Work Group will present its recommendations to SWRCB.

For more information about the Suisun Ecological Work Group or to see meeting summaries or subcommittee work plans, please visit our home page at wwwiep.water.ca.gov/sew/sew.html.

AGENDA

INTERAGENCY ECOLOGICAL PROGRAM ANNUAL WORKSHOP

and

BAY-DELTA MODELING FORUM ANNUAL MEETING & WORKSHOP

February 25-28, 1997

Asilomar Conference Center
800 Asilomar Avenue P.O. Box 537
Pacific Grove, California 93950
408/372-8016

DIRECTIONS TO ASILOMAR

From Sacramento/Stockton

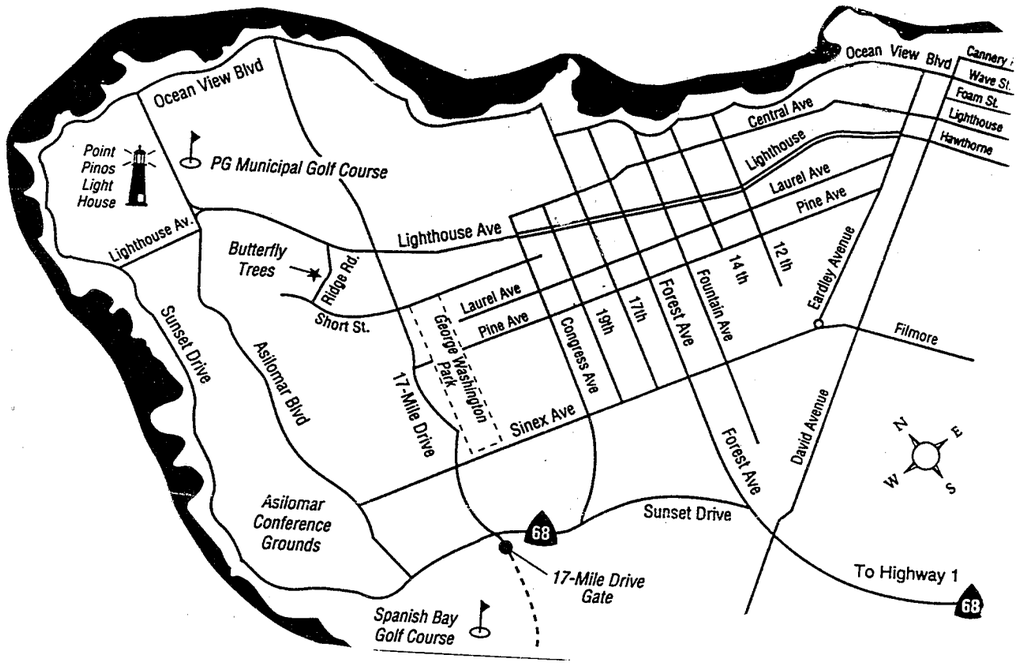
Take Interstate 5 south to Highway 152 west to 101 south to Prunedale area. Exit Highway 156 west (to Monterey Peninsula); be cautious of traffic when merging into right turn lane. Continue on 156 west through Castroville; Highway 156 merges with Highway 1 south, toward Carmel. Exit at Highway 68 west offramp to Pacific Grove. Follow 68 (now called Forest Avenue) past David Avenue. Get into left turn only lane, which will turn you onto Sunset. Conference grounds entrance will be on your left at the corner of Asilomar Boulevard and Sinex Avenue.

From San Francisco/San Jose

Take Highway 101 south through San Jose to the Prunedale area. Take Highway 156 west (to Monterey Peninsula); be cautious of traffic when merging into right turn lane. Continue on 156 west through Castroville; Highway 156 merges with Highway 1 south, toward Carmel. Exit at Highway 68 west offramp to Pacific Grove. Follow 68 (now called Forest Avenue) past David Avenue. Get into left turn only lane, which will turn you onto Sunset. Conference grounds entrance will be on your left at the corner of Asilomar Boulevard and Sinex Avenue.

From Los Angeles

Take Highway 101 north (or Interstate 5 north to 46 west to 101 north). EITHER — stay on 101N into Salinas and take 68W to Monterey — OR — between Spreckels and Salinas, exit at Spreckels offramp, turn left on Harris and follow the road through the little sugarmill town of Spreckels. At the end of the long row of trees on the main street, take 68W to Monterey. THEN — Continue on 68W to Interstate 5 south, toward Carmel. Exit at Highway 68 west offramp to Pacific Grove. Follow 68 (now called Forest Avenue) past David Avenue. Get into left turn only lane, which will turn you onto Sunset. Conference grounds entrance will be on your left at the corner of Asilomar Boulevard and Sinex Avenue.



Tuesday Morning, February 25

Pre-Meeting Breakout Session
10:15–12:00
Location – Oak Shelter

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Adapting and Updating Central Valley Simulation Models
David Briggs (CCWD) and Rob Tull (Montgomery-Watson)

10:15 Welcome and Overview ..... Rob Tull (Montgomery-Watson)

10:20 Adapting Central Valley Simulation Models in a Changing Regulatory and Physical Environment ..... Rob Tull (Montgomery-Watson)

10:40 Enhancements to DWRSIM to Evaluate CALFED Proposed Storage and Conveyance Alternatives ..... Sushil Arora (DWR) and Bill Smith (DWR)

11:00 Salinity-Outflow Relationships in Central Valley Simulation Models ..... David Briggs (CCWD)

11:15 Closing the Loop — Using Hydrodynamic and Salinity Transport Models to Confirm that Central Valley Simulation Models meet Delta Water Quality Standards ..... K.T. Shum (CCWD)

11:35 Update to CALFED/DWRSIM Post-Processing Spreadsheet Model ..... Ben Everett (CH_2MHill)

11:50 Discussion

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12:05 Lunch — On Your Own

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Tuesday Afternoon, February 25

Bay-Delta Modeling Forum Plenary Session
Location – Chapel

1:00 Assemble in Chapel Hall (Please Do Not Check In Yet)

1:00 Welcome and Overview ..... Jay Lund (UCD) and Peter Vorster (TBI)

1:15 The Ecosystem Restoration Program — Establishing a Physical Basis for Large-Scale Habitat Restoration in the Bay/Delta Watershed ..... Philip Williams (PWA)

1:45 Consensus Project Recommendations: A Framework for Integrating the Next Generation of Models for Water and Ecosystem Management ..... Wim Kimmerer (SFSU)

2:15 Integrating Policy and Modeling .... Panel Discussion led by Greg Gartrell (CCWD) and Stakeholder Representatives

3:00 Registration

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Bay-Delta Modeling Forum Breakout Sessions

Track A

Linking and Integrating Models
Location – Chapel Hall
Moderators: Roger Putty (Montgomery-Watson) and Harold Meyer (WRMI)

4:00 Welcome and Overview ..... Roger Putty (Montgomery-Watson)

4:05 Integrating Surface and Ground Water: Application of the WEAP Model to the Central Valley..... David Purkey (NHI)

4:25 Integrated Modeling Environments for the Central Valley
..... Saquib Najmus (CH2MHill), Abdul Khan (CH2MHill), Derek Hilts (USFWS)

4:50 Hydrologic/Economic Model Linkages
..... Roger Putty (Montgomery-Watson), Steve Hatchett (CH2MHill), David Moore (USBR)

5:15 Linking and Integration in South Florida..... Dan Scheer (WRMI)

5:35 Discussion

Track B

Hydrodynamics and Water Quality Modeling of the Delta
Location – Marlin
Moderators: Francis Chung (DWR) and Chuching Wang (MWD)

4:00 Introduction ..... Francis Chung (DWR)

4:05 Measured Flows in the Delta..... Rick Oltmann (USGS)

4:25 Geometry and DSM2 Calibration..... Ralph Finch (DWR)

4:45 Application of DSM1 and DSM2
..... Parviz Nader (DWR) and Mohammad Rayej (DWR)

5:05 CUWA Alternative Analysis: Modeling Issues and Results Interpretations
..... Chuching Wang (MWD) and K.T. Shum (CCWD)

5:30 Discussion

6:00 Dinner

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7:00 Forum Social (Location – Chapel) — Snacks and Soft Drinks Provided

7:30 Presentation of the Hugo B. Fischer Award

7:40 Presentation by Hugo B. Fischer Award Winner

8:10 The Floods of 1997..... Representatives of the National Weather Service, DWR, and Others

7:00 Breakfast

Bay-Delta Modeling Forum Annual Meeting

Location – Chapel Hall

8:00 Agenda, to be announced, will include membership suggestions for 1997 Forum workshops and activities, report on peer review process, selection of new officers and steering committee members.

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9:55 Break (Check-Out for Forum-Only Participants)

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Bay-Delta Modeling Forum Breakout Sessions

Track A

User Interfaces and Display Tools
Location – Chapel Hall
Moderators: Russ Brown (JSA) and Abdul Khan (CH2MHill)
(Continuing demonstrations will be set up in the Chapel Hall side bay.)

10:15 Welcome and Overview..... Russ Brown (JSA)

10:20 Facet Software: Application to Central Valley Models
..... Saquib Najmus (CH_2MHill), Abdul Khan (CH_2MHill), Derek Hilts (USFWS)

10:40 Analyzing and Visualizing DSM Results..... Chuching Wang (MWD) and Peter Louie (MWD)

11:00 Displaying and Communicating Multi-Dimensional Hydrodynamic and Water Quality Model Results ..... John DeGeorge (RMA)

11:15 Spreadsheet Integration of Measurements and Model Results..... Russ Brown (JSA)

11:30 Availability of DWRSIM Model and Studies on World Wide Web Home Page
..... Robert Leaf (DWR) and Bill Smith (DWR)

11:40 Discussion

Track B

Real-Time Decision Support and Forecasting Models
Location – Curlew
Moderator: Nigel Quinn (LBL/USBR)

10:15 Welcome and Overview ..... Nigel Quinn (LBL/USBR)

10:20 Real-Time Salinity Management on the San Joaquin
..... Nigel Quinn (LBL/USBR) and Les Grober (CVRWQCB)

10:45 Real-Time Operations Modeling for the SWP..... Curtis Creel (DWR)

11:10 Linking Planning Models with the Operational World..... Betty Andrews (PWA)

11:35 Discussion

Track C

Fish Movement and Particle Tracking
Location – Marlin
Moderators: K.T. Shum (CCWD) and Peter Baker (EA Engineering)

10:15 Introduction — What Are We Modeling? ..... K.T. Shum (CCWD)
10:30 Particle Tracking with Non-Uniform Cross-Sectional Mixing ..... Richard Denton (CCWD)
10:50 Overview on What is Known about Fish Behavior ..... Jim Quinn (UCD) and/or Bill Bennett (BBML)
11:10 "DeltaMOVE" for Historical Delta Conditions ..... Russ Brown (JSA)
11:30 Discussion

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12:00 Lunch

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INTERAGENCY ECOLOGICAL PROGRAM AND BAY-DELTA MODELING FORUM JOINT SESSION
Location – Chapel

Workshop Introduction and Program Updates
Pat Coulston

1:00 What's New in IEP ..... Pat Coulston (IEP)
1:15 Proposed IEP QA/QC Program ..... Peggy Lehman (DWR)
1:30 IEP's Approach to Strategic Thinking ..... Larry Smith (USGS)
1:45 IEP Information Management ..... Karl Jacobs (DWR)
2:00 Suisun Marsh Work Group ..... Brenda Grewell (DWR) and Heidi Bratovich (SWRCB)
2:20 Modeling Forum Update ..... Jay Lund (UCD)

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2:25 Break

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IEP Hydrodynamic Activities
Pete Smith

2:45 Measurement of Delta Outflow ..... Rick Oltmann (USGS)
3:05 3-D Bay Model ..... Pete Smith (USGS)

Suisun Bay Project Work Team Activities
Jim Arthur

3:25 Suisun Bay Project Work Team ..... Jim Arthur (USBR)
3:30 Entrapment Zone Study Hydrodynamic Results ..... Jon Burau (USGS)
3:50 Entrapment Zone Study Biological Results ..... Wim Kimmerer (SFSU) and Bill Bennett (BBML)

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4:10-6:00 Registration

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Bay-Delta Modeling Forum Breakout Sessions

Track A

Current application of GIS
Location – Chapel
Moderators: Grace Chan (MWD) and Sam Bledsoe (UCD)

4:15 Welcome and Overview ..... Grace Chan (MWD)
4:20 Riverine Habitat on the Sacramento ..... Jim Quinn (UCD)
4:45 CUWA Bay-Delta Database and GIS Project ..... Grace Chan (MWD) and Consultant
5:10 Changing Bay/Delta/Valley Hydroscapes ..... Brian Cohen (SFSU) or Jennifer Vick (PWA)
5:35 Discussion

Track B

Economics of Water Resources
Location – Curlew
Moderator: Wendy Illingworth (F&A)

4:15 Welcome and Overview ..... Wendy Illingworth (F&A)
4:20 Integrated Resources Planning: Combining Resource, Demand, and System Uncertainty ..... Dan Rodrigo (MWD) and Tim Blair (MWD)
4:50 Transaction Costs Associated with Water Transfers: Experiences and Opportunities ..... Jerry Gilbert (JGI), Brent Wahlthall (MWD), Greg Thomas (NHI), Doug Parker (UCB)

Track C

Development and Application of Particle Tracking Models
Location – Marlin
Moderators: Francis Chung (DWR) and John DeGeorge (RMA)

4:15 Welcome and Overview ..... Francis Chung (DWR) and John DeGeorge (RMA)

4:20 Quasi 3-Dimensional Particle Tracking Model..... Tara Smith (DWR)

4:40 Object-Oriented Approach to Implementing the Particle Tracking Model ..... Nicky Sandhu (DWR)

5:00 Multi-Dimensional Particle Tracking Model..... John DeGeorge (RMA)

5:20 Application of Multi-Dimensional Particle Tracking Model (Striped Bass Population Distribution) ..... Lou Botsford (UCD)

5:40 Discussion

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6:00 Dinner

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7:00 Social (No Early Birds, Please)

7:30 Featured Speaker — Ken Lajoie, USGS
"Geologic History of the Estuary and Implications for the Future"

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7:30 Breakfast

8:15 Announcements

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IEP Monitoring Project Work Team Activities

Kathy Hieb (DFG)

8:20 Monitoring Project Work Team Update..... Kathy Hieb (DFG)

8:25 Review of Striped Bass Hypotheses..... Lee Miller (DFG)

8:45 Climate Change and Its Influence on Striped Bass ..... Bill Bennett (BBML)

9:05 White Sturgeon Spawning Migrations and Spawning Habitat Characteristics..... Ray Schaffter (DFG)

9:25 Annual Movements of Adult Striped Bass, 1969-1994 ..... Ken Miller (DFG)

9:45 Survival and Contribution of Hatchery-Reared Striped Bass..... Michael D. Harris (DFG)

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10:05 Break

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Restoration in the Estuary

Sam Luoma

10:25 Conceptual Basis for CALFED Habitat Restoration..... Dick Daniel (CALFED)

10:45 Prospect Island Restoration ..... Katie Wadsworth (DWR) and Leslie Lew (USACE)

11:05 Approaches to Restoration in Estuarine and Coastal Ecosystems .... Si Simenstead (University of Washington)

11:35 Marsh Ecosystems in San Francisco Bay..... Josh Collins (SFEI)

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12:05 Lunch

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Restoration in the Estuary
Sam Luoma

1:00 Restoring Seagrass Habitats and Fish Stocks in Tampa Bay ..... Susan Bell (University of South Florida)

1:30 Trends in Fisheries Management and Restoration in Chesapeake Bay
..... Ed Houde (Chesapeake Biological Laboratory)

2:00 Restoration of San Francisco Bay Ecosystem ..... Science Advisory Group Discussion

2:45 Adjourn

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4:00 Poster Session

5:00 Social (No Early Birds, Please)

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6:00 Dinner

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7:00 Interagency Ecological Program Critique
..... Coordinators Answer Questions and Facilitate Discussion of the Interagency Program

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7:30 Breakfast

8:15 Announcements

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Salmon Investigations
Alan Baracco

8:20 Central Valley Salmon Project Work Team ..... Alan Baracco (DFG)

8:25 American River Salmon Studies ..... Bill Snider (DFG)

8:45 Battle Creek Winter-Run Salmon ..... Steve Croci (USFWS)

9:05 South Delta Salmon Studies ..... Mark Pierce (USFWS)

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9:25 Break

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Resident Fish, Contaminants, and Fish Facilities Updates
Leo Winternitz

9:45 Resident Fish Project Work Team ..... Leo Winternitz (DWR)

9:50 Delta Smelt Abundance and Distribution ..... Dale Sweetnam (DFG)

10:10 Resilience of Splittail ..... Ted Sommer (DWR)

10:35 Fish Facilities Development ..... Darryl Hayes (DWR)

10:55 Contaminant Effects Project Work Team ..... Chris Foe (CVRWQCB)

11:15 Workshop Wrap-Up ..... Pat Coulston (IEP)

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11:25 Checkout

12:00 Lunch

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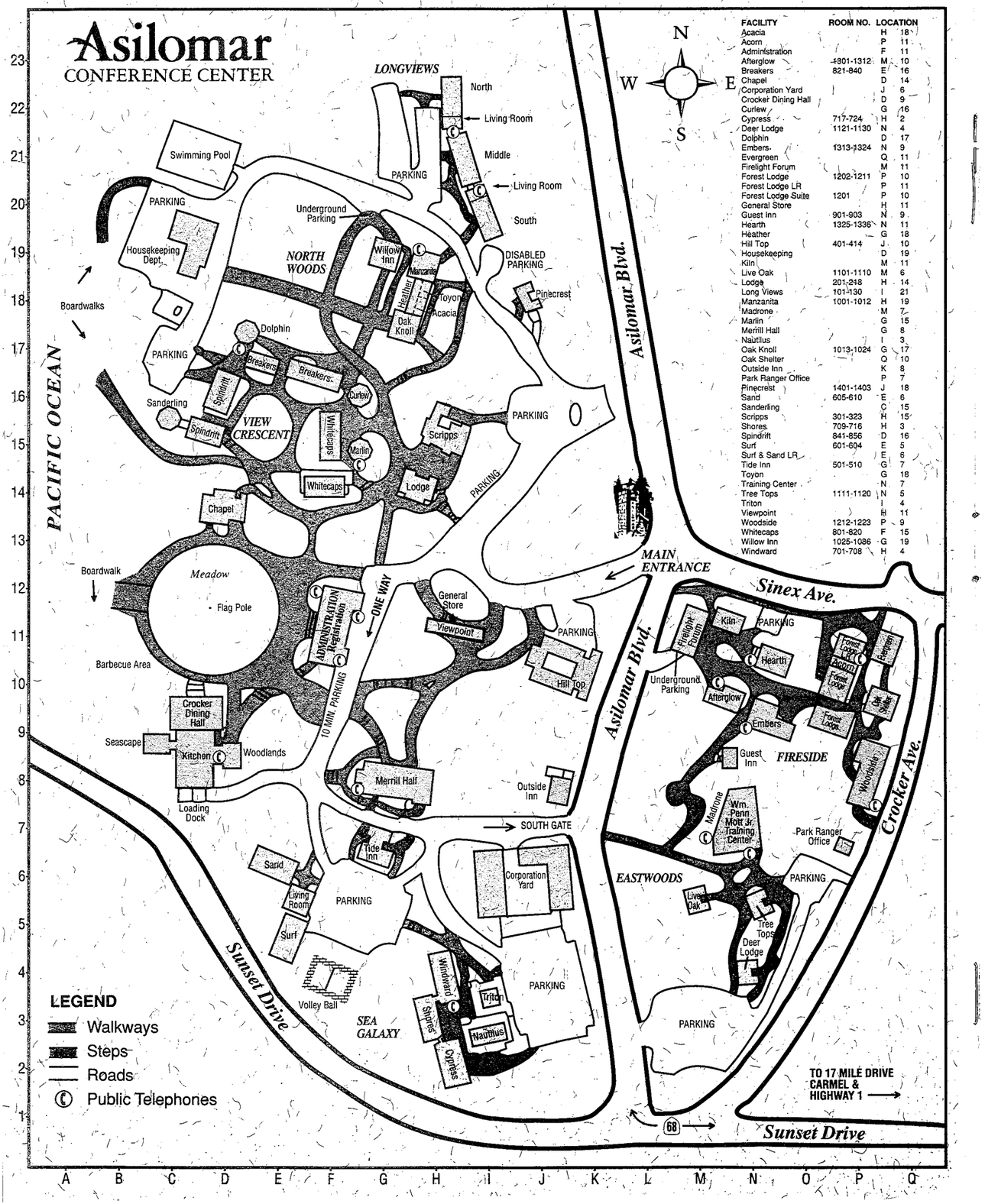

FACILITY	ROOM NO.	LOCATION
Acacia		H 18
Acorn		P 11
Administration		F 11
Afterglow	1301-1312	M 10
Breakers	821-840	E 16
Chapel		D 14
Corporation Yard		J 6
Crocker Dining Hall		D 9
Curlew		G 16
Cypress	717-724	H 2
Deer Lodge	1121-1130	N 4
Dolphin		D 17
Embers	1313-1324	N 9
Evergreen		Q 11
Firelight Forum		M 11
Forest Lodge	1202-1211	P 10
Forest Lodge LR		P 11
Forest Lodge Suite	1201	P 10
General Store		H 11
Guest Inn	901-903	N 9
Hearth	1325-1336	N 11
Heather		G 18
Hill Top	401-414	J 10
Housekeeping		D 19
Kiln		M 11
Live Oak	1101-1110	M 6
Lodge	201-218	H 14
Long Views	101-130	I 21
Manzanita	1001-1012	H 19
Madrone		M 7
Marlin		G 15
Merrill Hall		G 8
Nautilus		I 3
Oak Knoll	1013-1024	G 17
Oak Shelter		Q 10
Outside Inn		K 8
Park Ranger Office		P 7
Pinecrest	1401-1403	J 18
Sand	605-610	E 6
Sanderling		C 15
Scripps	301-323	H 15
Shores	709-716	H 3
Spindrift	841-856	D 16
Surf	601-604	E 5
Surf & Sand LR		E 6
Tide Inn	501-510	G 7
Toyon		G 18
Training Center		N 7
Tree Tops	1111-1120	N 5
Triton		I 4
Viewpoint		H 11
Woodside	1212-1223	P 9
Whitecaps	801-820	F 15
Willow Inn	1025-1086	G 19
Windward	701-708	H 4

Chinook Salmon

Following are some items that may be of interest to agency staff and stakeholders who are following Central Valley chinook salmon.

Central Valley Chinook Salmon Symposium

The Interagency Program's Central Valley Salmon Team will sponsor a 2-day symposium on May 13 and 14. The symposium will be at Bodega Marine Laboratory and will consist of a series of about 20 invited papers on various aspects of Central Valley chinook salmon stocks. The papers will include such topics as genetics, modeling, restoration activities, delta survival, delta diversions, ocean fishery, and detailed descriptions of selected stream/hatchery interactions such as on the Feather River and Battle Creek. The papers will be peer reviewed, edited, and published, probably as a DFG Fish Bulletin. Randy Brown, Marty Kjelson, and Terry Mills will serve as coeditors.

A final agenda will be available in late February, along with details about attendance. The agenda will be placed on the Interagency Home Page and on the new bay/delta email reflector. The meeting room is small, so attendance will limited. Priority will be given to agency staff, university researchers, and stakeholders working most directly with chinook salmon.

For more information, contact Randy Brown at rbrown@water.ca.gov.

Winter-Run Chinook Propagation

It appears that 1997 will be the second year in a row in which no adult winter chinook will be collected from the Sacramento River for the FWS artificial propagation program and to provide juvenile salmon for the captive broodstock program. Two problems caused a moratorium on adult collections in 1996: failure of juvenile hatchery winter chinook to imprint on the upper Sacramento River, and lack of procedure to assure NMFS that winter and spring chinook are not being hybridized. These problems have not been resolved. Although the problems will probably not be worked out in time for this year's collection window, considerable progress has been made on both issues.

With respect to the imprinting concern, FWS has identified a site on the Sacramento River near Anderson that may be used to rear the young winter chinook under conditions that will allow them to home in on the upper river and not Battle Creek. FWS is testing water quality at the site, a former private fish hatchery, and should know after this fall's test of survival of late-fall juveniles and fall-run fertilized eggs if it is suitable for rearing a listed species.

The ability to distinguish individual winter chinook is also coming closer to reality with the use of eight microsatellite markers tested at Bodega Marine Laboratory. Michael Banks, the BML researcher involved in these stuides, will be working with the captive broodstocks genetic review committee to establish the genetic information gathered to date and to establish the degree of certainty required by the program (*ie,* chances of being wrong 1 in 100, 1 in 1,000, 1 in 1,000,000 *etc*). In the next few weeks, staff at BML will be using ultrasound to estimate which of the fish are most likely to mature this spring and early summer.

Knights Landing Sampling Site

In January the Central Valley Salmon Team agreed to fund modified sample collection at Knights Landing through June 30, 1997. Rotary screw traps at this site fished continuously through all the recent high flows, and the delta satellite team recommended its operation beyond the scheduled January 1, 1997, termination date. Funding is from a combination of DFG, CVPIA, and Interagency Program sources.

Although no wild×wild or wild× hatchery progeny were released to the river in 1997, a couple thousand captive×captive crosses were released in late January and a couple more thousand are scheduled to be released in early March. The captive×captive crosses resulted from eggs and sperm collected from adults that had matured in holding tanks at Bodega Marine Laboratory or Steinhart Aquarium. The broodstock program has more than 400 maturing adults from the 1993 and 1994 broodyears on hand for use in 1997 spawning attempts.