

Chapter 373

Voluntary Scientific Peer Review Process



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- ❑ Priority list of watercourses, aquifers, and waterbodies for which MFLs will be established - updated annually
- ❑ Priority list shall also identify those water bodies for which the district will voluntarily undertake independent scientific peer review.

Independent Scientific Peer Review -

... a “review by a panel of independent, recognized experts in the fields of hydrology, hydrogeology, limnology, biology, and other scientific disciplines, to the extent relevant to the establishment of the minimum flow or level.”

Steps Taken:

- 1) Prepared list of 61 types of expertise - reviewed by LTPRG
- 2) Received and reviewed names from SFWMD Expert Assistance Program
- 3) Review resumes from previous Chapter 373 Peer Review effort
- 4) Reviewed other resumes from various sources

Results (so far):

- 1) Assigned 498 experts to 59 of the 61 categories of expertise
- 2) 49 categories of expertise have at least 10 names assigned
- 3) 19 categories of expertise have 40 or more assigned experts
- 4) One category (Surface-water hydrology) has 99 assigned experts
- 5) Some experts assigned to as many as 10 categories

SWFWMD Expertise Categories

A. Aquatic Ecology and Limnology, the Ecology of Inland Waters

1. General Freshwater Community and Ecosystem Ecology (73)
2. Freshwater Microbial Biology (5)
3. Freshwater Phytoplankton Ecology (14)
4. Freshwater Zooplankton Ecology (6)
5. Ecology of Freshwater Macrophytes/Hydrophytes (27)
6. Freshwater Periphyton and Algae Ecology (12)
7. Freshwater Invertebrate/Benthic Ecology (15)
8. Freshwater Fisheries Science/Ecology (18)
9. River/Stream Ecology and Management - Freshwater (32)
10. Freshwater Vertebrate Ecology (1)
11. Freshwater Wetlands Ecology (53)
12. Water Quality - Rivers and Lakes/ Wetlands (92)
13. Limnology (14)

SWFWMD Expertise Categories

B. Estuarine and Coastal Ecology

1. General Estuarine Community and Ecosystem Ecology (53)
2. Estuarine Phytoplankton Ecology (10)
3. Estuarine Zooplankton Ecology (6)
4. Ecology of Estuarine Macrophytes/Hydrophytes (17)
5. Estuarine Periphyton and Algae Ecology (7)
6. Estuarine Invertebrate/Benthic Ecology (24)
7. Estuarine Fisheries Science/Ecology (20)
8. Ecology of Coastal Environments (42)
9. Estuarine Wetlands Ecology (34)
10. Estuarine Microbial Biology (0)
11. Estuarine Vertebrate Ecology (0)
12. Estuarine and Coastal Resource Management (26)
13. Estuarine Water Quality (38)

SWFWMD Expertise Categories

C. Ecology - Other

1. Herpetology (2)
2. Mammalogy (6)
3. Ornithology (11)

SWFWMD Expertise Categories

D. Surface and Ground-Water Hydrology

1. Surface-water Hydrology (99)
2. Surface-water Engineering (68)
3. Hydrogeology (44)
4. Ground-water Hydrology (90)
5. Surface-water/Ground-water Interactions (57)

SWFWMD Expertise Categories

E. Modeling

1. Ecological Modeling - Freshwater (35)
2. Water Quality Modeling - Surface Water (80)
3. Water Quality Modeling - Ground Water (80)
4. Saltwater Intrusion modeling (10)
5. Hydrological Modeling - Surface Water (55)
6. Hydrological Modeling - Ground Water (77)
7. Surface-Water/Ground-Water Integrated Modeling (18)
8. Estuarine Physical Characteristics and Hydrodynamics (36)

SWFWMD Expertise Categories

F. Data and Analysis

1. Water Quality Monitoring and Network Design - Surface water (14)
2. Water Quality Monitoring and Network Design - Ground water (14)
3. Biological/Ecological Monitoring and Network Design (17)
4. Biostatistics /Categorical Statistics (33)
5. Hydrological/Water Quality Statistics (57)
6. Risk Assessment and Uncertainty Analysis (57)
7. Geostatistics (26)
8. Time Series Analysis (15)

SWFWMD Expertise Categories

G. Other sciences

1. Atmospheric Deposition Chemistry (22)
2. Soil Science (46)
3. Meteorology (16)
4. Rainfall/Evapotranspiration sciences (14)
5. Global/ Regional Environmental Change (15)
6. Environmental Toxicology (including human/plant/animal) (50)
7. Loading and Trophic State Determination (40)
8. Restored/Constructed Habitat Ecology (34)
9. Environmental Tracer Measurement (12)
10. Paleoecology (3)
11. Forest/Upland Ecology (20)

Process (for NTB MFLs)

- District will determine needed categories of expertise (considering LTPRG comment).
- District staff will randomly select 3 to 5 experts from each necessary category, checking on interest, availability, suitability, and conflicts of interest.
- At least three qualified experts for each required category of expertise will be asked to submit a bid for the job, with the lowest bidder chosen.
- Once a panel is chosen, it will be presented to the LTPRG, and the process will begin.

