

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION
RESOLUTION NO. 77-63

DELEGATION OF 208 PLANNING RESPONSIBILITY TO APPROPRIATE
AGENCIES PURSUANT TO SECTION 208 OF THE FEDERAL WATER
POLLUTION CONTROL ACT (PL 92-500)

- WHEREAS, in its 208 Planning Program the Regional Board proposes to delegate planning responsibility to appropriate agencies pursuant to Section 208 of the Federal Water Pollution Control Act (PL 92-500); and
- WHEREAS, agencies have been contacted concerning delegations and are agreeable to being delegated planning responsibilities within their areas of jurisdiction; and
- WHEREAS, the Regional Policy Advisory Committee recommends that the following specific planning responsibilities be delegated to the following agencies:

Planning Issue A - Agricultural Drains

In their respective jurisdictional areas, Imperial Irrigation District, Coachella Valley County Water District, and Palo Verde Irrigation District are recommended for delegation of responsibility for development and evaluation of alternative management practices for control of agricultural wastewater discharges, with eventual recommendation of BMP and of the logical local agency to implement same.

The Imperial County Agricultural Commissioner and the Riverside County Agricultural Commissioner are recommended for delegation of responsibility for development and investigation of alternative management practices regarding pesticidal operations, with eventual recommendation of BMP, and of the logical local agency to implement same.

Planning Issue B - Coachella Valley Groundwater Basin

Within their respective jurisdictions, Coachella Valley County Water District and Desert Water Agency are recommended for delegation of responsibility to develop and investigate water management practices to assure the continuance of adequate quality groundwater in the Coachella Valley Basin, with eventual recommendation of BMP and a recommendation of the logical local agency to implement same.

*Cancelled
9/20/89*

Planning Issue D - Pollution of New River and Alamo River
from Mexico

The International Boundary and Water Commission is recommended for delegation of responsibility for obtaining BMP within Mexico.

The California Regional Water Quality Control Board, Colorado River Basin Region, is the recommended agency for monitoring of New River and Alamo River at the International Boundary and downstream to the Salton Sea, in order to evaluate the results of any alternative management practices instituted in Mexico, and to develop and evaluate possible mitigation measures within California.

Planning Issue G - Colorado River Salinity Problem

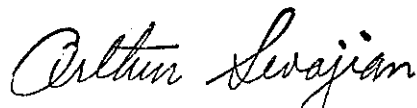
Palo Verde Irrigation District is recommended for delegation of responsibility for development and evaluation of alternative management practices to minimize salt contributions to the Colorado River from Palo Verde Valley, with eventual recommendation of BMP and a recommendation of the logical local agency to implement same; and

WHEREAS, the public has had the opportunity to review and comment on recommended delegations; now, therefore be it

RESOLVED, that the Board delegate planning responsibilities to the appropriate agencies as recommended above by the Regional Policy Advisory Committee; and

RESOLVED, that the Board authorize the Executive Officer to enter into contracts and/or letters of agreement with the above specified agencies for the above specified planning responsibilities.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on July 13, 1977.



Executive Officer

THIS TIME, THE UPPER NILE: WATER HYACINTH, 'ENVIRONMENTAL DISASTER'

Reprinted from *News Report*, published by
the National Academy of Sciences, December 1976

IT IS, THEY SAID, "one of the environmental disasters of the century." Thus begins the report of an international conference of scientists on the outbreak of water hyacinth in the Sudan. Water hyacinth is a South American plant now flourishing as an aquatic weed in many of the world's rivers, notably in the tropics. Water hyacinth chokes watercourses and therefore riverine fisheries, and it impedes navigation generally. It is as beloved as the bilharzia vectors and malaria-carrying mosquitos that it harbors. And it is tenacious.

Unreported in the Upper Nile before 1958, water hyacinth by 1962 infested a 700-kilometer stretch of the White Nile from near Khartoum south nearly to Uganda, and it infested many side lakes and tributaries as well. The floating mats in some instances have become "a thick carpet that people may walk on." To the north:

"... The Jebel Aulia Dam (south of Khartoum) forms a physical barrier against the northward spread of the weed, but water hyacinth actually has been in the Nile Delta for many years and has never reached 'plague' proportions. The spread of the plant in Egypt after 1972 appears to be a direct consequence of the slowing of the current of the Nile north of Aswan due to the erection of the High Dam. Water hyacinth is a common scene on the Nile in Cairo these days and was reported to have reached the town of El Menia in 1973."

The report is *Aquatic Weed Management: Some Prospects for the Sudan and the Nile Basin*, the result of a workshop jointly organized by the Board on Science and Technology for International Development, of the U.S. National Academy of Sciences' National Research Council Commission on International Relations, and the National Council for Research, of the Agricultural Research Council of the Democratic Republic of the Sudan. The workshop drew representatives as well from Egypt, Ethiopia, the Federal Republic of Germany, Indonesia, and Mozambique.

"Nile Basin waterways of Egypt, Sudan, Ethiopia, Uganda, Kenya, and Zaire are interconnected," workshop participants observed. "Weeds in one will ultimately infect the others; organisms added to one for the biological control of aquatic weeds may also eventually spread to others." Strategies for control of water hyacinth in the Nile Basin are of interest in many other regions as well. For the Nile Basin, the workshop recommended measures in four broad categories—herbicide application, information exchange and trade restrictions, biological intervention, and stimulation of economic incentive to harvest water hyacinth for its possible food and energy values.

The emphasis is on the first two categories. The alternatives to Sudan's current effort to control the weed by spraying the herbicide 2, 4-D "all should be considered as adjuncts to the existing program, and in no way as substitutes for it," the report



A close-up of the water hyacinth.

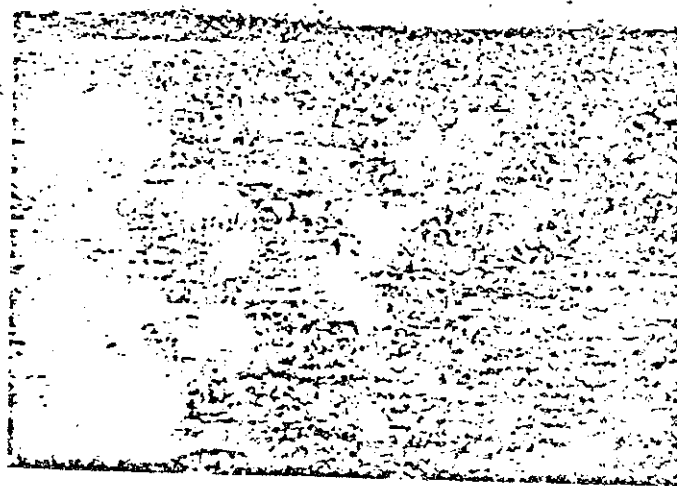
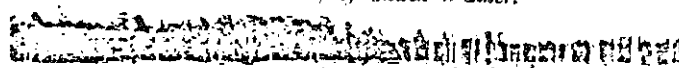
stresses. "Herbicides are the only technique today that can be relied upon to clear water hyacinth from waterways." But "they have serious disadvantages":

"They never eradicate all the plants, and their use becomes a never-ending process; the spray can drift to valuable neighboring crops and destroy them; they are expensive and must be purchased with foreign exchange; they can have an adverse effect on animal life in and around the waterways.

"Thus, although the splendid current program must be

(Continued on page 43)

Photos, courtesy of Chuck Walker.



The water hyacinth shows its prolific growth.

EDITOR'S NOTE: The Editor of *News Report*, Gerald S. Schatz, kindly granted permission to reprint the article on the water hyacinths as it appeared in the December 1976 issue.

CRUSTACEAN HEALTH WORKSHOP CALL FOR PAPERS

A workshop pertaining to the health of crustaceans will be held at the Flagship Hotel in Galveston, Texas, April 20-22, 1977. It is being sponsored by the National Oceanic and Atmospheric Administration, Galveston Coastal Fisheries Laboratory, and by the Texas A & M University. Preliminary format will include state-of-the-art topics in the following areas:

1. Infectious diseases.
2. Non-infectious diseases (nutritional and physiological disorders, chemical and physical injuries, genetic diseases, etc.).
3. Defense mechanisms of crustaceans.
4. Laboratory techniques applicable to studies of the health of crustaceans [procedures for submission and examination of specimens, special histology and electron microscopy techniques, laboratory models (bioassay models, standard animals, etc.), preservation of microbial stock cultures, water chemistry analysis, etc.]
5. Prevention and control of diseases.
6. Laws and legislations (uses of therapeutic drugs, question on exotic diseases, etc.)

Each presentation will be limited to 15 minutes. At the end of each session there will be an informal roundtable discussion period. In addition, if anyone has special materials such as slides and photographs or new information relevant to the purpose of the workshop that he would like to share on occasions other than in a formal presentation session, bring them with you. We shall attempt to arrange certain convenient hours for informal "show-and-tell" activities.

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continued at full capacity, experimentation on the alternatives . . . must also be carried out as a matter of priority so that successful methods can be used to reduce long-term dependence on herbicides."

Information exchange is "crucial," biological-import

Aquatic Weed Management: Some Prospects for the Sudan and the Nile Basin.

Report of a workshop, November 24-29, 1975, Khartoum, Democratic Republic of the Sudan, sponsored by the National Council for Research, Agricultural Research Council, Democratic Republic of the Sudan, and the (U.S.) National Academy of Sciences, Board on Science and Technology for International Development, Commission on International Relations, National Research Council, National Academy of Sciences (National Council for Research, Agricultural Research Council, Democratic Republic of the Sudan, 1976; 64 pp.; available from the board; supply limited).

regulation essential. Plant-protection and other appropriate agencies in all countries in regions vulnerable to water-weed infestation "must maintain close communication." When a new aquatic weed arrives in the waters of one nation, "massive programs sponsored by all the nations may be the only way to eradicate it before it spreads throughout the region." There must be exchange of information on the use of biological controls. An insect, pathogen, or fish introduced to control water hyacinth in

one country may prove harmful elsewhere.

"A ban on importing foreign aquatic plants to the [Nile Basin] region, and actions to restrict the spread of aquatic plants already present, must be imposed," this report urges. Among plants cited as "equally" as "devastating" as water hyacinth but not yet in the Nile Basin: *Egeria densa*, *Elodea canadensis*, *Hydrilla verticillata*, *Lagarosiphon major*, *Myriophyllum spicatum*, and *Salvinia molesta*. Restrictions should apply also to aquarium plants and botanical-exhibit plants, and aquatic plants should not be imported for scientific study "unless exhaustive tests are first conducted under strict quarantine," the workshop recommended.

Two additional strategies, perhaps ultimately to become alternatives to spraying, should be pursued concurrently, the workshop recommended. One is experiment with biological control—using herbivorous fishes, insects, and other plants—in tests cautiously contained lest the proposed controls introduce worse problems. The other is experiment with realizing food and energy values from water hyacinth while thus stimulating a market for its removal. In simplest form, this may mean importing water buffalo to use it as forage. In more ambitious form: the U.S. National Aeronautics and Space Administration's "discovery that biogas can be generated from the plant is most important," and, "Small-scale studies with water hyacinth and cotton stalks should be initiated for biogas production." The U.S. program "is still in the pilot stage and will not be scaled up . . . for several years," but limited programs could begin now in the Sudan, beginning tests "leading to the exploitation of the resource."

A RIVER IS RE-BORN

The Monongahela, a 128-mile-long river formed in West Virginia by the West Fork and the Tygart Rivers and flowing north through Pennsylvania to join the Allegheny and form the Ohio River, supported an abundant and profitable fisheries industry during the nineteenth century. During the first half of the twentieth century water quality degradation caused by acid mine drainage from active and abandoned coal mines in the small streams tributary to the mainstem upper river from Fairmont, West Virginia, to Charleroi, Pennsylvania, and heavy industrial development and activity in the lower river from Charleroi to Pittsburgh killed virtually all the fish in the Monongahela. One of the most heavily industrialized rivers in the world had become an aquatic desert.

Pollution from coal mine drainage included high acidity reflected by low pH levels, high turbidity, high concentrations of iron, manganese, sulfate, and bottom deposits of chemical precipitates. It had corroded boats, dams, and instream facilities. Siltation had severely polluted the local streams feeding into the Monongahela.

This river has now been revitalized through the dedicated cooperation of local, State, and Federal authorities—the Ohio River Valley Sanitation Commission, the U.S. Public Health Service, the Environmental Protection Agency, the Southwestern Pennsylvania Regional Planning Commission through grants from the Environmental Protection Agency, the West Virginia Department of Natural Resources Division of Water Resources, and the the Pennsylvania Department of Environmental Resources. The story of the rebirth of this major river is available as *Life Again along the Monongahela*, by Paul Weiser, United States Department of Interior, Bureau of Outdoor Reclamation, Philadelphia, Pennsylvania.