



HAL
open science

Waste stabilization ponds in France

Catherine Boutin

► **To cite this version:**

Catherine Boutin. Waste stabilization ponds in France. Newsletter n°2 of the IAWPRC'S group on waste stabilization ponds, 1991, oct-91, p.4. hal-02609076

HAL Id: hal-02609076

<https://hal.inrae.fr/hal-02609076>

Submitted on 6 Jul 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

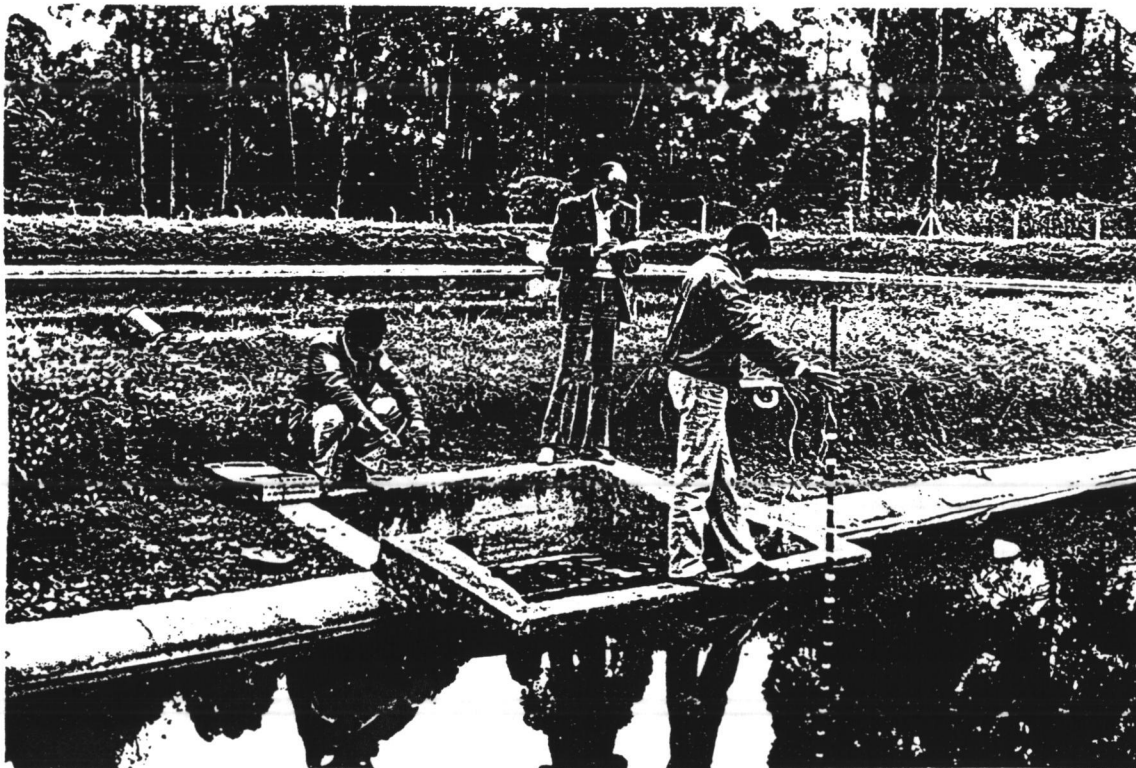


INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH
AND CONTROL

WASTE STABILIZATION PONDS

WSP NEWSLETTER NO. 2 - October 1991

The *WSP Newsletter* is for members of IAWPRC's Specialist Technical Group on Waste Stabilization Ponds. It is issued twice a year, in April and October. Group members wishing to submit articles and announcements in the *Newsletter* should write to the Editor at his address given on page 2. New members are very welcome: please write to the Group's secretary (at her address also given on page 2).



Scientists from the Kenyan Ministry of Water Development monitoring one of the ponds at Karatina - see article on page 6.

WSP in France

Ms Catherine Boutin, of CEMAGREF Lyon, has sent in these short reports on WSP in France. Further reports on French ponds will appear in *WSP Newsletter No 3*. Background information on ponds in France is given in *Water Science and Technology*, 19(12), 25-31, (1987).

WSP at Rochefort

The WSP complex at the coastal town of Rochefort, in the Department of Charente Maritime, is now the largest in France. It covers 35 ha and receives the mainly domestic wastewater from a population of 35,000. Pond technology was chosen because of the need to maintain a high bacteriological quality in the River Charente, which receives the effluent, as it is used for oyster culture and bathing.

Two primary sedimentation tanks precede the WSP, of which there are two series of a facultative and two maturation ponds. The WSP were commissioned in 1988. In the following year the pond influent was very strong due to drought conditions: the ponds were at their design organic load, but well under their hydraulic load, and odour problems in the facultative ponds occurred. For a short time the wastewater was diluted by recirculating the final effluent and this controlled the odours. Since then, the pond system has been working very well and in April 1991 the final effluent quality was:

Filtered COD	100 mg/l
Filtered BOD	12 mg/l
Suspended solids	100 mg/l
TKN	9 mg/l
Total coliforms	1.1 x 10 ⁴ per 100 ml

Further information is available from SATESE DDASS (17), Centre Administratif, 2 Av de Fetilly, 17021 La Rochelle Cedex.

WSP Research at ENSP, Rennes

Ponds have been studied at the École National de la Santé Publique in Rennes, Brittany, for the past 12 years. Initially research emphasis was given to pathogen removal in ponds in northern France, and this has been recently extended ponds in the south of the country. These studies have shown the importance of the sludge layer in maintaining pathogen populations. The

accumulation and speciation of heavy metals in pond sludges has also been studied, as have sludge accumulation rates and degree of sludge mineralisation. The most convenient option for pond sludge disposal has been found to be spreading on land, but pond sludges have only a small fertilizer value, due to their high level of mineralisation; they are also as contaminated as other wastewater sludges.

ENSP has also studied the impact of pond effluents on receiving waters and the use of maturation, or polishing, ponds after conventional sewage treatment. The polishing ponds achieved little removal of suspended solids or nitrogen but were effective in removing faecal bacteria.

For further information, please contact Professor Rémi Demillac, École National de la Santé Publique, Av Prof Léon Bernard, 35043 Rennes Cedex (Fax: +33 9928 2828).

Publications on WSP

Two WSP publications have been produced by CEMAGREF.

- L'exploitation des Lagunages naturels: guide technique a l'usage des petites collectivités (an O & M guide for small community ponds). Available (also in English) from Mme C Boutin, CEMAGREF, 3 bis Quai Chauveau, 69336 Lyon Cedex 09.
- Le Genie Civil des Bassins de Lagunage (pond construction guide). Available (only in French) from M C Bernard, CEMAGREF, Parc de Tourvoie, BP 121, 92185 Antony Cedex.

Pond Colloquium

A pond colloquium is being held on 1-2 December 1991 in Poitiers. Details from M Benjamin Pelletier, Fondation Européenne pour l'Environnement, 11/17 Rue de la Croix Moreau, 75018 Paris Cedex. It is hoped to have a report of the Poitiers Colloquium in *WSP Newsletter No 3*.