

REPUBLIQUE FRANÇAISE

TERRITOIRE DES ILES
WALLIS ET FUTUNA

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*Service Territorial
de l'Environnement*

Mata Utu le 29 octobre 2007

NOTE

pour Monsieur le Préfet
Administrateur Supérieur des Iles WALLIS et FUTUNA

RE: Water in Wallis and Futuna

1- Water resources

In Wallis, the water resource consists of a single groundwater table, consisting of freshwater saturated, altered volcanic underground. This freshwater layer is fed by rainwater that filters through permeable basalt and is in a dynamic balance with the seawater.

The total quantity of available freshwater is estimated to be at 62 million m³. The annual recharge is estimated to be between 10 and 20 million m³. This resource easily provides for the freshwater requirements of the local population, currently in the order of 2 million m³, i.e. 10 to 20 % of the annual recharge.

All the raw water analysis that have been performed show that the bacteriological quality of the Wallis groundwater is particularly good for the deep boreholes in the centre of the island; yet faecal pollution is found in shallow wells downstream of villages, as well as in freshwater springs.

On 16 December 2005, the detailed chemical analysis of a water sample from the Holo borehole found traces of oil (the analysis was performed by the laboratory of Calédonienne des eaux in Nouméa). New tests are scheduled for the end of 2007.

The island of Futuna has a relatively dense hydrographical surface network, which is currently sufficient to feed the drinking water distribution network, but also to irrigate their terraced taro plantations and other crops. Yet in the future, the drinking water distribution network's high amount of leaked water, could lead to water shortages during the dry season.

It is believed that the island should have underground water resources, yet the 2003 drillings never reached any.

The bacteriological, physical and chemical tests that have been performed in the main rivers show that the water quality mainly depends on the weather patterns.

2 – Water usage

2.1- Water for human consumption

2.1.1. Production, storage, distribution, pricing

In Wallis, the Territory has contractually outsourced the drinking water distribution to the private company EEWF (Electricité et Eau de Wallis et Futuna – Wallis and Futuna Power and Water). The farmout agreement was signed on 12 September 2005.

Wallis currently operates nine boreholes; the outdated infrastructure would require new investments, yet difficulties associated with land title matters have stalled the exploration of new boreholes on two occasions (case of 3 new boreholes in Hologa which cannot be exploited).

The storage capacity in Wallis is clearly insufficient: The total capacity is 2500 m³, with an average daily consumption of roughly 3500 m³. Thus Wallis does not even have a 24 hour storage capacity in the case of a total power failure.

The network yield is still relatively low (56%), yet EEWF has begun an active search for leaks in the network in order to improve it.

Water pricing in Wallis is progressive and depends on the amount of water consumed. This penalises professionals but rationalises consumption for households. The water rates are fixed in the farmout agreement, and varies between more or less 75 Fcfp and 180 Fcfp per m³, depending on the consumption bracket.

In Futuna, the water infrastructure and distribution is directly managed by the Territory and by Futuna's local office of the Department of Public Works. Over the years, the State's investment efforts have contributed to improving the situation, in terms of volume.

Unlike the situation in the island of Wallis, Futuna's water distribution is free (all expenses are borne by the Territory) and the level of consumption is unknown.

2.1.2. Water quality in the distribution network

Water quality monitoring is an integral part of the responsibilities of the agency in charge of water distribution. The monitoring of the water for human consumption in the Territory is regulated by Deliberation n°. 80 AT 2001 dated 7 September 2001 and Implementation Decree n°. 2002-047 dated 8 February 2002.

The water analysis laboratory has been operational since 2001 as a part of the territory's environmental department. In Futuna, samples are taken very early in the morning by the local representative and are then sent for analysis to Wallis by plane in a coolbox. The water from the Territory's reservoirs and distribution points is tested more or less one hundred times each year. This monitoring enables the detection of any accidental or chronic pollution that may affect the population's drinking water supply.

In Wallis, the water in the public distribution network is poor in minerals (which is due to the geological nature of the volcanic subsoil) but has an excellent bacteriological quality (it is disinfected with gaseous chlorine). This water always meets drinking water standards.

In Futuna, the water in the public distribution network which is not subjected to any physical or chemical treatment is of a very bad bacteriological quality, in spite of the regular cleaning of the storage basins. The only network that shows a reduced contamination level is the one that supplies water to the Kaleveleve hospital. This water is treated (yet still insufficiently, since the water rarely meets the standards).

2.2 - Water for agricultural purposes

Breeding activities tap into the drinking water distribution network whereas water for irrigation purposes generally comes from untreated sources (rivers, springs, wells, rainwater, etc).

2.3 - Aquatic environments

Ecologically speaking, the freshwater aquaculture areas of the islands of Wallis and Futuna are important ecosystems. They cater for a specific fauna and flora that is very fragile and sensitive to abnormal variations of the water supply and water quality. Crustaceans and fish, some of which are being exploited, are among the main groups of this freshwater aquaculture fauna.

An initial stocktaking of the freshwater biodiversity of Wallis and Futuna in October 2004, established a relatively complete inventory of this freshwater fauna and flora and led to a follow up program of this ecosystem over time.

3 – Water management measures

3.1- Creation of a water observatory

The water observatory was created in 2001 and its main mission is to ensure a regular and permanent monitoring of the quantity and quality of the territory's water resource and of its aquatic environments.

In terms of quantity, this monitoring provides the competent authorities with information about the risk of water shortages. In terms of quality, this monitoring allows the detection of any trace of accidental pollution that may pose a threat to public health or to the survival of the aquatic fauna or flora.

3.2- Implementation of a program to fight pollution

The program to fight pollution was implemented within the framework plan contract 2000 - 2004 and in the development convention 2003 – 2007. This led to a significant improvement in the collection and treatment of solid and liquid waste.

For the Territory, the implementation of the selective collection and treatment of certain toxic or contaminated wastes or contaminants constitutes in this regard a major progress.

3.3- Elaborating a Water Infrastructure and Management Plan

The current elaboration of a water infrastructure and management plan, that is financed by the Ministry for Ecology, Development and Sustainable Infrastructure will develop, for each

watershed, the measures that need to be put in place to improve the conditions for the exploitation, management and protection of the water resources, notably in the light of the foreseeable consequences of climate change.