**UNDERGROUND WATERS PRESERVA­TION BILL 1959**

**House of Assembly, 24 November 1959, pages 1802-4**

Second reading

**The Hon. Sir THOMAS PLAYFORD (Premier and Treasurer)—**I move**—**

*That this Bill be now read a second time.*

Its purpose is to enact provisions to prevent the contamination and deterioration of underground waters within the State. A Bill along somewhat similar lines was introduced in this Chamber in 1957 when, however, it was discharged. The present Bill differs from the earlier one in that its purpose is restricted to the prevention of contamination and deterioration.

Members will appreciate the necessity for this legislation. We have, unfortunately, a low annual rainfall and in many areas we are almost completely dependent on the supply of underground water. It is essential that proper steps be taken to ensure that the fresh water supplies that are known to exist should not become contaminated or polluted or be allowed to suffer deterioration so far as it is possible to take preventive measures. Not only has there been a great increase in the use of underground water for farming, industrial and ordinary purposes, but the introduction and widespread use of septic tanks has added to the demand. Problems of effluent disposal have also grown from this factor as well as the discharge of industrial waste.

The general scheme of the Bill is, therefore, to provide in critical areas for control of the sinking, deepening and maintenance of wells and the amount of underground water that may be taken from wells, with a view to prevention of contamination of the source of supply. Fresh water is very often found in a basin underlying salt water, or above it. In either case, if the work of sinking a well is not carried out under proper conditions, or if too much water is drawn from the well, salt water is drawn into the fresh water supply or percolates into it, with resultant contamination. The process of being drawn in or of percolating can be accelerated if too much water is drawn from one or more wells in the same area. This fact is of considerable importance in relation to the northern Adelaide plains where good underground water is available for market gardens in the metropolitan area. The fresh water zone is, however, surrounded by a zone of saline water with consequential danger of the latter being drawn into the fresh water zone, seriously affecting the supplies available for market gardens. The system of controls is set forth in Part II of the Bill.

Clause 5 empowers the definition by regulation of areas to which the other provisions of Part II will apply. Clause 6 requires occupiers of existing wells or wells in course of construction to notify the Minister of their existence, while clause 7 provides that wells may not be sunk or deepened or used for drainage purposes if they have not been previously so used, nor may the casing of wells be altered or repaired in any way, without a permit, application for which is to be made to the Minister under clause 8. The Minister may, under clause 9, refuse or revoke a permit if he has reasonable cause to believe that the work or use of the well would be likely to cause contamination or deterioration of any underground water. The Minister may, under clause 11, include in a permit any terms and conditions, including terms and conditions restricting the amount of water that may be taken from a well which he deems necessary to prevent contamination or deterioration of underground water.

Clause 12 provides for the transfer and variation of permits and clause 13 for appeals against any decision by the Minister. Clause 15 empowers the making of emergency repairs. Clauses 16, 17 and 18 provide generally for the maintenance of wells and for the Minister to direct owners or occupiers to take proper steps to ensure the prevention of contamination or deterioration of underground water.

Clause 19 requires permit holders to submit returns as to wells to the Minister. In connection with the system of controls provided for in the Bill, I would draw the attention of honourable members, to the definition of “well” in clause 4 *.* Wells used exclusively for the drainage of roof or pavement run-off from private dwellings and soakage pits used in connection with septic tanks or waste water from private dwellings are excluded. Furthermore, clause 5 (*c*) of the Bill empowers exemption by regulation of particular wells of less than depths to be prescribed. This provision is designed to eliminate unnecessary work by landowners as well as the department where circumstances will permit. Clause 20 requires the approval of the Minister of Lands in respect of wells on land leased under the Pastoral Act.

Part III of the Bill establishes an Advisory Committee to advise the Minister upon any questions relating to contamination or deterioration of underground waters or arising in connection with the administration of the Act. The committee will consist not only of certain departmental technical officers, but also of a private well-drilling contractor and a person having local knowledge. The Minister may add such other persons as he considers necessary.

Part IV of the Bill sets up an Appeal Board to hear appeals by persons aggrieved by any decision of the Minister on application for permits or renewals. The board has power to affirm, vary or quash any decision or direction appealed against, or to make any other or additional decision or direction as it thinks just.

Part V of the Bill contains general provisions complementary to the main theme of the Bill and which are self-explanatory. I believe that there has been considerable misunderstanding of the purpose of this Bill and I propose to take this opportunity to clear the minds of members, so that it can be properly and objectively considered. The whole of this State depends in some degree or other on underground waters—even here in the metropolitan area in years such as this, we are forced to draw heavily on underground water to supplement our sorely taxed surface supplies.

Honourable members are also aware that the rapid development of this State over the last decade or so necessitates an increasing usage of our limited water supplies, and every effort is being made to fully develop all sources of supply, both above and below ground.

It is, therefore, in the interests of the whole State to ensure that underground waters are properly looked after, and the sole purpose of this Bill is to try and ensure that if the underground water supply of a district—let me emphasize “district”—becomes seriously affected in quality, effective remedial action can be taken to restore the quality of that water. It is, in effect, an insurance policy.

Honourable members are aware of the several ways by which a supply of good underground water can become contaminated and often useless. These include:—

1. The direct entry of salt water from above into the fresh water beneath, by careless or incorrect construction of a well—this can be called “vertical contamination”;
2. The second method is another form of “vertical contamination” where a noxious effluent is disposed underground into a well, and thence makes its way into the underground water which it contaminates;
3. The removal of fresh water by pumping at a rate faster than its replenishment and its consequential replacement by salt water from surrounding areas. This could be called “horizontal contamination”.*’*

Instances of all these types of contamination are known in South Australia, but we do not propose any action under this Bill until the Minister is satisfied that a state of emergency exists which affects not an individual, but a district water supply, which is either contaminated, or is seriously threatened by contamination.

The way I see this Bill operating in practice is this:—

1. The first step would be a thorough technical examination of the problem areas by the Mines Department—such areas already exist unfortunately, and their condition could be aggravated by this drought year—and if a serious contamination threat on a district basis exists, the department reports accordingly to its Minister.
2. The Minister may then refer the matter to the Advisory Committee which would thoroughly sift the evidence, and if it concluded there is a serious contamination risk, would recommend to the Minister that the affected area should be prescribed, and certain remedial action taken, to restore the underground waters to their original quality as quickly as possible. With regard to size of any area to be pre­scribed, whilst it is obviously essential to include sufficient ground to remedy the situation effectively, it is considered that in general these areas would be quite limited, of the order of a few square miles only and not vast areas of the State piece-meal, as some people appear to imagine. In this respect it is somewhat akin to the regulations gazetted in connection with fruit fly eradication, where only a sufficient area is proclaimed to deal with each particular infestation as it occurs.
3. The Minister would have to satisfy Executive Council that the regulation was necessary, and Parliament would have the right to disallow any regulation in the ordinary way.
4. Much has been said about interference with private rights. When an area has been prescribed by regulation, any, person in the area who considers himself adversely affected by any action taken by the Minister, can appeal and his appeal will be dealt with expeditiously by a competent and impartial Appeal Board.

No-one questions the right of landowners to utilize the underground waters on their properties and the whole purpose of this Bill is to ensure that these waters are preserved from contamination and will continue to be available for the benefit of the landholder and the community indefinitely.

Let us suppose for a moment that this legislation was not proceeded with, and salt water contamination developed in underground water, say on the Adelaide Plains. What use are the “inherent rights” to the underground water when it is no longer fit to use, and who would be asked to rectify the position as a matter of extreme urgency? The Government of this State, of course, and without legislation of this nature the Government could not take any useful action. I commend the Bill to honourable members as a means of preserving the quality of one of our most valuable natural assets—unpolluted underground water.

I believe that this matter will assume more and more importance with the passing of the years. In the first place, concern has been expressed in some towns that underground waters are being contaminated by the use of septic tanks and deep bores for the disposal of effluent. That is a practice that has to be watched very closely.

Mr. Quirke—Wells have been sealed off in some towns.

The Hon. Sir THOMAS PLAYFORD— Secondly, this matter will probably assume more than ordinary importance this year. As honourable members know, last winter underground water catchments generally did not receive any replenishment, and I should be surprised if some of our underground water sources did not feel the heavy pull upon the water this year because there was no replenishi ment of underground waters in this State anywhere last year. Where saline water is fairly close to fresh water and the fresh water is pulled out, the natural and almost invariable result is that the saline water will take its place.

Mr. O’Halloran—And become permanent.

The Hon. Sir THOMAS PLAYFORD—Yes, obviously. This Bill is of considerable importance, from the point of view of not only health but also a permanent deterioration of some of our important water basins. Incidentally, the Bill has received much discussion in another place and some minor amendments have been made but, as far as I can see, its general purposes have not been altered and it is substantially the legislation that was introduced there.

Mr. O’HALLORAN secured the adjournment of the debate.