

**ORIGINAL**

Decision No. 73806

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Sea View Manor Water Consumers  
Fields Landing Water Consumers  
King Salmon Water Consumers  
South Bay School Board,

Complainants,

vs.

J. J. Worthington  
7295 Worthington Lane  
Eureka, California,

Defendant.

Case No. 8691  
(Filed September 22, 1967)

Richard A. Sherman, for complainants.  
James J. Worthington, for Fields Landing Water Works,  
defendant.  
John J. Gannon, for State Department of Public Health,  
interested party.  
W. B. Stradley, for the Commission staff.

O P I N I O N

Fields Landing Water Works is located near the southern end of Humboldt Bay in Humboldt County. The water system is owned by Coastair Electronics Corporation, whose stock is wholly owned by Mr. and Mrs. J. J. Worthington. Worthington testified that they were serving 257 customers at the time of the hearing. However, one of the 257 is a mutual water company called the King Salmon Water Company. This account yields about \$115 per month and is served through a 2-inch meter.

The instant proceeding is concerned with the quality of water. The complaint does not raise the issue of rates but the evidence drew the filed rates of defendant into consideration.

Public hearing was held before Examiner Power in Eureka on December 6, 1967. Submission was effective on January 2, 1967, when the last exhibit was filed.

There was virtually no dispute on the facts. The water, especially that produced in Well No. 2, has excessive amounts of iron and manganese. Some tests have recently revealed an increasing amount of chlorides, suggesting a possible invasion by sea water.

The community of Fields Landing was formerly served by certain springs which delivered water of adequate quality. The wells mentioned in the evidence are in Sea View Manor, a later added subdivision. These, especially Well No. 2, have delivered water of unsatisfactory and deteriorating quality.

Several possible cures were suggested at the hearing. One is the regular flushing of the mains. Another is the process known as Calgon. A third is a treatment plant. A fourth is purchase of water from the Humboldt Community Services District. A fifth is purchase of water from a nearby public utility called the Reynolds Water Company. The evidence clearly indicated that to require any one of the last three without an offsetting rate increase to cover additional cost would be confiscatory.

Flushing began about two weeks before the hearing. It would be more effective if there were more flushing points. Regardless of what solution is finally adopted the flushing should continue and blow-off valves or fire hydrants should be installed where needed to make the flushing more effective.

Calgon is used in a system of chemical treatment of water and a settlement facility of some kind would be needed.

A water treatment plant, a proprietary one, was described by a witness. It is a continuous feed permanganate process for

removing iron, manganese and sulfur from well water. Potassium permanganate is fed into the water as it is going through a filter. The filter consists of finely ground anthracite coal granules on a bed of manganese zeolite. Two units costing \$10,145, or \$20,290 in all, would be needed plus a pad to put the units on, and a suitable house to contain the units. The witness was not informed of precise labor and material costs in the Humboldt Bay region but estimated installation costs at \$25,000 to \$27,000. Operating costs would include \$234 to \$285 per month for permanganate plus backwash water and a small electricity cost.

In late-filed Exhibit No. 6, James J. Worthington estimated the cost of obtaining water from Humboldt Community Services District. He estimated the capital cost at \$10,080. This would involve 2,600 feet of six-inch diameter A/C pipe for the necessary connection. If Well No. 1, the better well, and the springs were left on the system an increase in rates of \$3.05 per customer per month would be needed. If both wells and the springs were taken off and all water purchased from the District, the necessary revenue increase would be \$5.74 per customer per month. Worthington's estimates included the cost of water to the utility.

Reynolds Water Company has a public utility water system near the Fields Landing Water Works and on higher ground. In Exhibit No. 9 Worthington estimated that the capital investment required would be \$1,826 for 720 feet of four-inch diameter main plus valves, fittings, a meter and box. He indicated that if the springs and a well were left on the system an increase in revenue of \$3.39 per customer per month would be needed. If all water were purchased from Reynolds the required increase per customer per month would be \$7.80. These costs, however, are based upon the

existing general metered rate schedules of both the District and Reynolds. Should Fields Landing find it necessary to purchase its water supply from either the District or Reynolds, it is anticipated that a schedule applicable for resale purposes will be established for this service.

The treatment plant, District and Reynolds Water Company solutions all will require some capital investment. In the case of the first two the investment would be substantial and the utility reports that it is unable to finance these. It appears that Worthington will be able to finance a Reynolds connection.

In Exhibit No. 8 Worthington suggests two alternatives which would be vastly cheaper than the three mentioned in the last paragraph. Alternative No. 1 is based on the fact that Wells Nos. 1 and 2 are immediately adjacent to each other. Well No. 2 is twenty-five feet deeper than No. 1. Well No. 2 has been giving most of the trouble. Therefore, there is a possibility that bad water is getting into No. 2 through the lower strata. If No. 2 were sealed back perhaps water of satisfactory quality could be produced. The exhibit estimates cost at \$150.

The second alternative is Calgon. Worthington estimates capital cost at \$500 and operating expense at \$100 per month. It will be noted if these two alternatives were both adopted, seriatim, the total capital investment would amount to only \$650. For this reason if they are tried and both fail, the consumers will not have been unreasonably burdened. If they succeed the consumers will have a very substantial saving.

A week or two prior to the hearing, a program of flushing the mains was instituted. Several witnesses reported improvement

thereafter. This program should be continued and if any additional blow-off valves or hydrants are needed they should be supplied. The flushing should continue in connection with whatever other improvement program is installed.

In the Commission's opinion the problem should be attacked in the following ways and in the order indicated:

- First Sealing back Well No. 2 if feasible plus flushing of the mains.
- Second Calgon plus flushing.
- Third Connection to Humboldt Community Services District or Reynolds Water Company, plus flushing.

It may be that the most serious disease from which this utility suffers is financial anemia. The rates are very low as compared with nearby utilities. This utility appears to have neither cash nor credit in adequate amounts.

The Commission finds that:

1. The Fields Landing Water Works is a public utility water system owned by Coastair Electronics Corporation. The stock of said corporation is one hundred percent owned by James J. Worthington and wife. Mr. Worthington is its president.

2. Fields Landing Water Works at the time of the hearing herein (December 6, 1967) was serving 257 consumers with water produced from springs and from two wells. One of the 257 customers is a mutual water company.

3. The water supplied by Fields Landing Water Works is satisfactory as to bacteria count, but has contained excessive amounts of iron and manganese and at times has had a muddy and rust-colored appearance and has stained plumbing fixtures and appliances.

4. The possible remedies for this condition are flushing of the mains, chemical treatments and purchase of water from alternate sources.

5. The rates of this utility are very low and may not be yielding a fair return on investment. Some available remedies cannot be adopted at this time unless additional revenue can be provided to pay for them.

The Commission concludes that Coastair Electronics Corporation, owner and operator of Fields Landing Water Works, should be required to take measures beginning with the least expensive ones to improve the quality of its water and that any required improvement which will occasion a substantial investment of the utility's funds must be accompanied by an offsetting increase in its rates.

O R D E R

IT IS ORDERED that:

1. Coastair Electronics Corporation shall attempt the elimination of excessive amounts of iron and manganese in its water supply by a series of remedial actions in the order set forth in Appendix A hereto attached.

2. Coastair Electronics Corporation shall report in writing within sixty days after the effective date of this order, and every sixty days thereafter until further order of this Commission, its progress in improvement of its water supply, including cost of installed facilities and cost of any purchased water. The



APPENDIX A

Coastair Electronics Corporation (Fields Landing Water Works) shall undertake such of the following remedial measures as are necessary to improve the quality of water supplied to consumers:

1. Continue its present program for flushing its mains adding blow-off valves or hydrants at existing dead ends to make this program more effective.

2. Investigate the feasibility and, if it proves feasible, seal its Well No. 2 back to the present depth of Well No. 1.

3. Install a Calgon system of water treatment.

4.(a) Establish a connection with Reynolds Water Company and exclude Well No. 2 from the Fields Landing Water Works; or

(b) Establish a connection with Humboldt Community Services District and exclude Well No. 2 from the Fields Landing Water Works.