EXHIBIT 10

Technical Memorandum

Water Quality and Temperature Considerations in Over the Rim Mitigation Proposal

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[1] Appendix 1 hereto provides Mr. Schuur's qualifications and background information.

I. INTRODUCTION

This Technical Memorandum is being provided to augment information contained in the 2009 Replacement Water Plan and Third Mitigation Plan (Over-the-Rim) of North Snake Ground Water District and Magic Valley Ground Water District dated March 12, 2009.

II. DISCUSSION

The principal categories of water quality concern for the Over the Rim (OTR) mitigation proposal are temperature, dissolved gas, and dissolved solids. Each of these requires a more detailed description of specific issues as provided below:

A. TEMPERATURE

Temperature is a physical property of water that can be changed by heat transfer from the surrounding environment. Based on my review of SRF records supplied to the Idaho Department of Environmental Quality, the typical SRF temperature at the spring outlet is 14.5 C. Assuming that the well water in the well is similar to the typical SRF temperature of 14.5 C (to be determined by samples and evaluation), temperature change depends on the heat transfer to (or from) the water through the pipe.

The present information indicates that the proposed supply wells above the rim have water temperatures at discharge that are within a degree of Snake River Farm (SRF) raceway temperature of 14.5 C. We anticipate that the delivered water temperature at the spring box will be very close to the existing temperature range at SRF. I suggest that for the very worst case in which we would mix 3% of the flow with water that is 1.5 C warmer than the existing temperature of 14.5 C the result would be 3% of 1.5 C or about 0.045 C warming. That is less than 0.1 C and would therefore not even be detectable with normal thermometers. Even in what I anticipate as an extreme, the OTR mitigation supply is very unlikely to cause any change in the SRF raceway temperature and that it will remain in the optimal growth range for trout and that the trout will experience no stress from temperature fluctuations caused by the OTR flow.

B. DISSOLVED GAS SUPERSATURATION

Dissolved gas supersaturation is another physical property of water that arises when the dissolved gas in solution exceeds the solubility of the gas in water. This can be dangerous to fish but is, with proper and simple engineering, unlikely to occur in the OTR mitigation proposal pipeline. One of the likely means of delivering water to the SRF spring box is likely to be a spray aeration system that will dissipate the energy from the water at about 100 psi on a rock bed. This accomplishes three things:

- Equilibration of dissolved gases to atmospheric pressure
- Saturation of the flow with oxygen
- Evaporative cooling that would offset any warming in the pipe

The two principal ways of inducing supersaturation are increasing the temperature of water that is already saturated and entraining air in the pipe by the Venturi effect caused by leaks in the pipe or joints. The temperature increase is not indicated because of the inherent temperature stability of the system. Any entrainment of air is prevented by proper pipe installation. Even if supersaturation should occur, the aeration system at delivery would rectify any supersaturation.

C. DISSOLVED SOLIDS

Dissolved solids are the dissolved chemical constituents in the water that are likely to be constant from the well to the spring box. Assuming acceptable chemical quality in the well water is determined, it is unlikely to change during conveyance to the spring box.

APPENDIX 1

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Personal: Born Whittier, California August 12, 1945
Languages: English, Spanish
Education: B.S. Biological Science, University of California, Irvine, 1969; Graduate Studies in Agricultural Economics, University of California, Davis.

Employment Summary:

1988 to present, **Aquaculture Management Services**
Principal Aquaculture Consultant
1994 to 1997, **Altrix International/Jamaica Flour Mills Investments**
Project Development Manager
Project Manager, Altrix Panama shrimp farm expansion
Project Manager, Hellshire Hatchery design and construction
1984 to 1988, **Agrifuture Inc.**
Vice President, Director, Agrifuture, Inc.
Vice President, Tomales Shellfish Farms, Inc.
Vice President, Aquafuture, Inc.
Consultant to the World Bank (Indonesia)
1978 to 1984, **James M. Montgomery Consulting Engineers, Inc.**
Supervising Aquaculture Scientist
Senior Aquaculture Scientist
1976 to 1978, **Maricultura, S.A.**, Costa Rica
Production Manager
Assistant Operations Manager
1972 to 1976, **University of California, Davis**
Postgraduate Research Economist, Department of Agricultural Economics
Program Manager, Aquaculture Development Program
Staff Research Associate
1970 to 1972 **Brown and Caldwell, Consulting Engineers**
Water Quality Biologist
1965 to 1967 **United States Marine Corps**
Sergeant, communications specialist

Specific Experience Areas:

- Preparation of commercial fish and shrimp farm studies for clients in Panama, Guatemala, Jamaica, Honduras, Nicaragua, Colombia, Venezuela, Ecuador, Mexico, Trinidad, India, Malaysia, South Africa, Sri Lanka, Bangladesh, and Indonesia
- Operational management of commercial shrimp, shellfish, and finfish production programs.
- Preparation of business plans and financial projections for commercial aquaculture ventures.
- Preparation of bioengineering criteria and design studies and for commercial intensive and semi-intensive aquaculture production systems.
- Mathematical modeling of bioengineering systems.
- Preparation of rural development project plans in Africa, Asia, and Latin America.
- Instruction in bioenergetics and bioengineering (Associate Instructor, Aquaculture Department, Harbor Branch Oceanographic Institution)
- Project management including construction of water systems, supervision of civil including pump stations, water control structures, and ponds.

Publications:

Co-author of Bioeconomics of Aquaculture, a monograph. Author or co-author of the following academic papers and more than 60 technical reports, system designs, and financial plans.

Schuur, A.M., Allen, P.G., and Botsford, L.W. 1974. An analysis of three facilities for the commercial production of Homarus americanus. American Society of Agricultural Engineers. Paper No. 74-5517.

Shleser, R.A., and Schuur, A.M. 1975. Utilization of power plant thermal effluent for mariculture. In: Water Management by the Electrical Power Industry. Water Resources Symposium. 8:307-312. Center for Research in Water Resources.

Botsford, L. W., Raush, H.E., Schuur, A.M. and Shleser, R.A. 1975. An economically optimum aquaculture facility. Proceedings of the World Mariculture S ociety, 6:407-420.
Schuur, A.M., Fisher, W.S., Van Olst, J., Carlberg, J., Shleser, R.A., and Ford, R. 1976.

Hatchery Methods for the Production of Juvenile Lobsters (Homarus americanus). University of California Sea Grant Program. Publication 48.

Wickham, D.E., Shleser, R.A., and Schuur, A.M. 1976. Observations on the inshore population of Dungeness Crab, Cancer magister, in Bodega Bay. California Fish and Game, 62(1): 89-92.

Allen, P.G., L.W. Botsford, A.M. Schuur, and W.E. Johnston, 1984. Bioeconomics of Aquaculture, A Systems Approach. Elsevier, New York, 386 pp.

Schuur, A.M. 1991. A bioenergetic model for application to intensive fish culture system management. Fisheries Bioengineering Symposium, American Fisheries Society Symposium 10: 393-401.

Rolland Laramore, S. Allen, P.Hitchens, X. Romero, and A. Schuur. 2000. Artificial induction of active accommodation for white spot syndrome virus (WSSV) in *Penaeus vannamei* with tolerine products. Presented at 4th Congreso Centroamericano de Acuicultura, June 2000.

Schuur, A.M. 2003. Evaluation of biosecurity applications for intensive shrimp farming. Aquacultural Engineering 28 (1-2): 3-20.

Organizations:
California Aquaculture Association, President, 1988, Chairman of the Board, 1989; National Aquaculture Association, founding Director, 1990, Newsletter Editor, 1991; Editorial Board, Aquacultural Engineering, 1998-present; member World Aquaculture Society, and Aquacultural Engineering Society; California Aquaculture Association, Vice President and Chairman of the Governmental Affairs Committee, 2006 to present.

NARRATIVE SUMMARY
Anthonie M. Schuur

Mr. Schuur is a professional aquaculture scientist with over 30 years of experience in aquaculture both as an operational manager and as a consultant. He has direct experience as the manager of commercial fin-fish, shrimp, and bivalve production facilities encompassing both intensive and extensive production methods. His consulting experience includes 7 years as a Supervising Environmental Scientist with James M. Montgomery Consulting Engineers and 18 years as an independent consultant specializing in services to commercial aquaculture clients. The scope of his consulting includes bioengineering studies, facility planning and design, operational advisory services, expert testimony, marketing development, and financial analysis.

He is a co-author of *Bioeconomics of Aquaculture*, a monograph describing the interrelationships between the biological, engineering, and economic aspects of aquaculture production. His scientific publications often emphasize the field of bioenergetics that underlies many of the criteria for aquaculture production facilities. He has conducted several seminars demonstrating the use of bioenergetics models for aquaculture systems management at national aquaculture technical meetings and at the University of California, Davis.

He has completed several comprehensive planning studies that include conceptual development, facility engineering, capital cost assessment, and analysis of projected financial performance. Under contract to the International Finance Corporation of the World Bank, he prepared an extensive shrimp farming feasibility study for a 6,000-acre site in Nicaragua. The study included an integrated plan for a shrimp farming industry complex including a hatchery, a shrimp farm capable of five million pounds of output per year, and a processing facility. In 1997, he completed an assignment as the project manager of a shrimp farm and hatchery complex in Panama and Jamaica. The Panama farm expansion involved construction of 300 hectares of new ponds, renovation of 100 hectares, construction of a 12 cum/sec pump station, and other ancillary structures. The Jamaica hatchery has the capacity to produce approximately 30 million shrimp post-larvae per month. In 1999, he prepared a comprehensive planning study for a shrimp-farming venture in Venezuela comprising more than 5,000 acres.

He has also prepared plans and system designs for several intensive fin-fish farming ventures including the facilities employed by The Fishery near Sacramento, California. The intensive facility is used for the production of sturgeon caviar and produces several tons of select caviar annually. He has also prepared similar designs for intensive culture of several kinds of fish including catfish, tilapia, and stripped bass.

Due to his specialization in aquaculture economics and the financial assessment of aquaculture ventures, Mr. Schuur has served several institutional clients requiring appraisals for aquaculture facilities. On five occasions, he prepared expert opinions for submission in court proceedings. His expert testimony was used to ascertain asset values and other financial issues. Mr. Schuur has also assisted lending institutions and development agencies in assessing loans for proposed aquaculture projects.

Mr. Schuur has served as a technical and management advisory resource to many commercial aquaculture production clients such as The Fishery, Shrimp Culture Inc., Sea Ark International, Sierra AquaFarms, SeaChick of Mississippi, Solar AquaFarms (Chiquita Brands), GrupoGranjas Marinas de San Bermardo, Altrix International, Jamaica Flour Mills (ADM) and Bluepoints Company, Inc. Services for these clients span a diversity of species and culture system approaches.

As an independent consultant, Mr. Schuur provides planning and bioengineering professional services to private, corporate, and public clients and serves on the editorial board of the journal, Aquacultural Engineering.