Exhibit No.:	_____
Issue:	Feasibility Study
Witness:	David G. Krehbiel
Sponsoring Party:	Big Island Water & Sewer Company, Inc.
Case No.:	Case No. WA-2006-0480

BIG ISLAND WATER & SEWER COMPANY, INC.

Case No. WA-2006-0480

DIRECT TESTIMONY

OF

DAVID G. KREHBIEL

Camdenton, Missouri
October, 2006

DAVID KREHBIEL DIRECT

BACKGROUND

Q. Please state you name and your business address.

A. My name is David G. Krehbiel and my business address is 63 Blair Ave., Camdenton, MO 65020.

Q. By whom are you employed and what is your position.

A. I am employed by Krehbiel Engineering, Inc. as a Consulting Engineer.

Q. Please describe your education, professional credentials and previous work experience.

A. I obtained a Bachelor of Science Degree in Civil Engineering from the University of Missouri, Columbia in 1961, and returned to that institution to earn my Masters of Science in the same field in 1964. From 1961 to 1964 I worked for Krehbiel Construction Company, Inc. as an Engineer and Corporate Secretary. From 1965 to 1969 I acted as President of the Missouri Engineering Corporation. From 1969 to the present I have been employed by Krehbiel Engineering, Inc. of Camdenton either in management capacities or as an engineer with the group. I am licensed by the State of Missouri as a Professional Engineer and Professional Land Surveyor.

Q. For whom are you testifying in this proceeding

A. Big Island Water & Sewer Company, Inc., the applicant.

Q. What is the purpose of your testimony?

A. I will be covering several topics in my testimony. First, I will describe for the Commission the role of my engineering firm in the design of the water and sewer systems serving Big Island at the Lake of the Ozarks. I will explain the features of each system and the layout of each at this time. I will also advise the Commission of the expected additions and improvements to the system that are either planned or underway at this time.

I will also describe for the Commission the processes employed in developing the Feasibility Study for this application. The Feasibility Study was filed with the Commission on July 19, 2006.

DESIGN AND FEATURES OF THE WATER AND SEWER SYSTEMS.

Q. Mr. Krehbiel, when was your firm retained by Folsom Ridge LLC in connection with the water and sewer systems for the Island.

A. We submitted a letter of engagement for our services to Folsom Ridge on February 19, 2004 to provide consulting engineering services regarding the separation of the water distribution lines and sewer collection lines. Ms. Barb Brunk is expected to testify about the circumstances involving this event but basically, Folsom Ridge was required to abandon an existing water line that had been installed too closely to a wastewater collection line. Our firm was hired at

the time the replacement line was under consideration. Krehbiel Engineering has also been involved in the design and construction of extensions and improvements to the systems.

Q. Please explain the design and components of the water system.

A. The water system is comprised of the following components: a water supply well, three (3) ground storage tanks, a booster pumping system and distribution system. The well has an estimated capacity of 140 gpm. This is adequate to serve 320 residential customers. The pumping equipment delivers a flow of approximately 100 gpm, and will have to be upgraded to supply 140 gpm. The ground storage tanks were designed to serve 80 residential customers. They are in the process of being replaced with a standpipe designed to serve 320 residential customers. The distribution system is adequately sized to serve 320 residential customers.

Q. Please explain the design and components of the sewer system.

A. The sewer system is comprised of a septic tank effluent pumping (STEP) collection system and a recirculating sand filter treatment facility. Wastewater from each home is treated at each individual home with a septic tank. The gray water is pumped from the septic tanks through small diameter pipes to the recirculating sand filter where the water is treated to meet Missouri Department of Natural Resources (DNR) discharge limits. The original treatment facility was designed to treat 22,525 gallons per day. The addition currently under

construction will provide for treatment of an additional flow of 41,625 gallons per day.

Q. Have there been any improvements or additions to the systems since they were first constructed and installed. Please describe them for the Commission and the reasons for each..

A. For reference purposes, the water system projects for Big Island have been categorized in the following Phases:

Phase I – Original system – supply – storage – distribution system – East side
Phase II – Completion of distribution system loop – West side
Phase III – Off island extension
Phase IV – First section of duplexes and triplexes
Phase V – Storage upgrade

Between Phases II and III the project to relocate the waterline to establish a 10 feet separation between the water and sewer line intervened. As I said earlier, Krehbiel Engineering was the engineer for the separation project and also for Phases IV and V.

Krehbiel Engineering was the consultant for the off island sewer line extension, the upgrade of the wastewater treatment facility and the sewer line extension to serve the first section of duplexes and triplexes.

The water and sewer line extensions were to serve additional customers.

The wastewater treatment facility and water storage upgrade are to provide for additional capacity for each system.

Q. Did you coordinate the design and permitting of these improvements with DNR.

A. Yes, I have.

Q. Did your firm inspect the installation of the improvements to the systems.

A. Our firm provided observation services for the relocation of the waterline in accordance with a settlement agreement reached between Folsom Ridge and DNR, and the extension of water and sewer lines and the upgrade to the wastewater treatment facility.

Q. Have the improvements been inspected by DNR and have any improvements been rejected by DNR.

A. To the best of my knowledge, the improvements have been inspected by DNR and no improvements have been rejected by DNR.

THE FEASIBLITY STUDY

Q. Mr. Krehbiel, would you tell the Commission the steps you followed in preparing the Feasibility Study in this case.

A. The Feasibility Study is a narrative report which first describes its own purpose; the Study supplies a description of the existing facilities and a description of the facilities to be constructed in the next three years. I also prepared a drawing outlining the area to be served along with details showing the existing water and sewer systems. As Ms. Brunk will note in her testimony, we determined that the service area description should be corrected and that correction should be noted in her testimony. A Global Analysis was prepared by Folsom Ridge's accountant, Bill Hughes, which was given to me for use in the Study.

Q. Please describe for the Commission how you developed the proposed rates, connection fees and other charges set out in the Feasibility Study.

A. I began by preparing a spread sheet of costs incorporating the figures from the Global Analysis and the projected costs for completing the wastewater treatment expansion, completing the proposed water improvements and the cost of the professional services for PSC certification. These costs were separated between the water and sewer systems.

From these costs, I developed a Pro Forma sheet for each of the systems, Water and Sewer. Explanatory Notes were provided detailing specific cost items. These Pro Forma sheets establish a proposed average monthly rate for service. The connection fee is the estimated cost to provide a service connection.

Q. Regarding the new line that Folsom Ridge installed to replace one that could not be used, have the rates in the Feasibility Study been designed to recover not only Folsom's costs of installing the initial line but also the line that replaced it.

A. Mr. Hughes, who supplied me with much of the data and proposed formulations used for the study, can provide more insight on this question. My understanding of the rate structure is that the rates, water and sewer, in the Feasibility Study have been designed for Folsom to recover $53,593.58 of their total delivery system expenditures of $534,278.54. This is based on a projected customer base of 111 potential users. The rates are not designed to specifically recover any discrete cost of building the systems.

Q. Does this conclude your direct testimony?

A. Yes.