MOCK TRIAL STIPULATIONS and GENERAL EXPLANATORY INFORMATION

- 1. This trial is bifurcated and will be tried on liability only.
- 2. The Federal Rules of Civil Procedure and the Federal Rules of Evidence apply.
- 3. Suwannee is a mythical state in a parallel universe. The geography is slightly different. For instance, in Suwannee, Foster County is a strange compressed combination of Florida's Leon and Hillsborough counties.
- 4. The only statutes, administrative code provisions or water management district manual provisions you may use are the ones provided in the packet.
- 5. You may not use case law. This decision was made due to the great differences in water law in the different states. The jury charges concerning negligence were drafted using the Restatement (Second) of Torts §858.
- 6. Daubert challenges to any expert witness were raised pre-trial and overruled. The rulings are preserved for appellate review and do not need to raised again at trial in the state of Suwannee.
- 7. The exhibits in the packet are authentic, and may be placed into evidence by any witness with knowledge upon proper foundation. Billie Cash and George/Georgia Franklin have read all the depositions in this case by the time of trial. You may assume that each of them agree on most of the things stated in the other person's deposition and each could also testify to facts presented by the other except where there are direct contradictions in the two depositions. Obviously, their conclusions about causation are fairly different. Each of the experts can be assumed to be familiar with the Suwannee statutes, administrative code, and Southwest Suwannee permitting manual.
- 8. Although it is not clear to the author whether preemption challenges could be successfully raised by the Defendant in this case, you are to assume that the Suwannee State Supreme Court has previously addressed this issue, and found that private parties may still bring common law actions of nuisance and negligence. To make this even clearer, see the savings clause the Suwannee legislature/author added to Chapter 373. No motions or affirmative defenses challenging the Plaintiff's right to bring this case in circuit court will be entertained. For anyone interested in the Florida law the author found that is either directly or tangentially related to this issue or how to raise it, see Florida Statute §373.217; <u>Martin v. E. Airlines, Inc.</u>, 630 So.2d 1206 (Fla. 4th DCA 1994); <u>Nw. Florida Mgmt. Dist. v. Dep't of Cmty. Affairs</u>, 7 So.3d 1129, (Fla. 1st DCA 2009); and <u>Labruzzo v. Atl. Dredging & Const. Co.</u>, 54 So.2d 673 (Fla. 1951) (predates enactment of Florida Statutes, Chapter 373).

- 9. You do not need to address the request for an injunction. <u>Marshall v. Sprecher</u>, 559 So.2d 1280 (Fla./Suwannee 2nd DCA 1990) found that ruling on an injunction request pre-trial would foreclose the right to a jury trial due to the collateral estoppel and res judicata effect. A request for an injunction in Suwannee is in equity, and a judge, not a jury, would determine whether an injunction should be granted, and only after the jury has made its findings concerning the nuisance claim.
- 10. Suwannee is a comparative negligence state. The jury instructions and verdict form reflect this. The author added an allocation of "fault" provision to the nuisance claim as well based on information obtained from Neighboring Property Owners § 2:16, Neighboring Property Owners § 2:20 and Restatement (Second) of Torts §840B (1977).
- 11. Finally, the author, like Tor Barnes, is not a person of math or science. The author thought a problem involving sinkholes, land subsidence, and water rights would be interesting. Little did she know how complicated these issues are, how difficult the proof, or how much science and math would be involved in trying a real case with these issues! You may want to read "Hydrogeologic Impacts Observed During the January 2010 Freeze Event in Dover/Plant City, Hillsborough County, Florida" by Robert O. Peterson and James O. Rumbaugh, III, dated June 2012, http://www.swfwmd.state.fl.us/agriculture/freeze-management/Dover_Freeze_Report.pdf The Southwest Florida Water Management District and the authors graciously agreed to let me use material from this report/resource evaluation, including facts, figures, and graphs so we would have some science and math to utilize in our mock trial problem. You might also like to look at 89 Am. Jur. Proof of Facts 3d 233, "Proof of Wrongful Interference with Use of Water Well" for an example of how one might actually try a case involving an expert testimony from a hydrogeologist where mathematical and geological information must be conveyed to a jury. This is not that case.
- 12. Inevitably, you will find mistakes or things that were just too burdensome to fix. If you see a reference in exhibit materials to Dover/Plant City, that is Foster County. Florida is Suwannee. I couldn't make up legal descriptions, so you just need to know that the Plaintiff and Defendant are adjoining land owners. If you see issues relating to the exhibits, let me know and I will try to work them out.
- 13. You may photo shop your face into any picture showing a man with a white horse. That is Lee Roberts. That goes for female Lee Roberts as well.
- 14. We only have four courtrooms with technology capability. You will be required to use some kind of technology (your choice) in the semi-final or final rounds, but only in those rounds.

IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT, IN AND FOR FOSTER COUNTY, SUWANNEE

TASTEA BOTTLING COMPANY,

PLAINTIFF,

vs.

CASE NO. 11-CA- 445

IKRA YAITSO CURMUDGEON FARMS,

DEFENDANT.

COMPLAINT

Plaintiff, Tastea Bottling Company, sues Defendant, Ikra Yaitso Curmedgeon Farms, and alleges:

- This is an action for damages that exceed Fifteen Thousand Dollars (\$15,000), exclusive of interest, costs and attorneys' fees.
- 2. Plaintiff Tastea Bottling Company is a private for profit corporation, licensed to do business and doing business in the State of Suwannee. Plaintiff's main place of business is located at 1234 Natural Bridge Road, White Springs, Suwannee. Plaintiff produces and sells bottled spring water and specialty tea products made with spring water.
- 3. Defendant, Ikra Yaitso Curmudgeon Farms, is a private for profit corporation, licensed to do business and doing business in the State of Suwannee. Defendant's main place of business is located at 123 Strongberry Lane, White Springs, Suwannee. Defendant is an agricultural business, raising curmudgeon fish and roe for sale and growing strongberries for sale.
- Plaintiff is the owner of all right, title, interest, use and possession in the real and personal property located at 1234 Natural Bridge Road, the legal description of which is ______.
 Prior to sustaining damage and injury proximately caused by the acts and omissions of the

Defendant complained of in this complaint, Plaintiff experienced the full use and enjoyment of the above-described property to which its ownership entitled it, together with all other incidents of ownership to which Plaintiff was entitled.

- 5. Defendant owns real property that adjoins and abuts the Plaintiff's real property. The address is 123 Strongberry Lane, White Springs, Suwannee, and the legal description of Defendant's land is _____. Defendant has in the past and continues at present to engage in massive and substantial pumping of subsurface fresh water from the Upper Florida Aquifer which exists beneath the surface of Plaintiff's and Defendant's properties.
- 6. The extensive withdrawal of fresh water which has been conducted by the Defendant in the past and its continued withdrawal of enormous amounts of water at the present time have proximately caused the subsidence, sinking, and permanent loss of a land bridge on Plaintiff's property. The land bridge collapsed suddenly and without warning on March 6th, 2011 during a civil war reenactment event sponsored by Plaintiff. Plaintiff lost not only the land bridge, but also valuable personal property including, but not limited to, a horse and personal property used for the reenactment. The land bridge had irreplaceable and historic value as it was the site of the last Civil War battle in the state of Suwannee, and was used yearly for reenactment events. The destruction of Plaintiff's land bridge has resulted in the loss of business conducted on such property and the complete loss of Plaintiff's use and enjoyment of the land bridge.
- 7. The extensive withdrawal of fresh water which has been conducted by the Defendant in the past and its continued withdrawal of enormous amounts of water at the present time have caused a natural spring on Plaintiff's property to cease flowing for almost one month and will continue to affect spring flow in the future. The spring is the source of the water used in Plaintiff's water and tea bottling business which advertises and markets its

product as made from spring water. Plaintiff is not allowed to market its product as a bottled spring water product unless there is an actual, flowing spring that is part of the aquifer from which Plaintiff withdraws water used for its products. As a direct result of the loss of spring water, Plaintiff has suffered severe economic losses and will continue to suffer severe economic losses.

- 8. The business so conducted by the Defendant in extracting massive amounts of underground water has caused and continues to cause permanent and irreparable damage to the Plaintiff's land, improvements, and business, permanently interfering with the use and enjoyment of such property so as to make the land of Plaintiff unusable for either business, commercial, or recreational purposes.
- 9. Defendant's extraction of massive amounts of underground water has resulted in the loss of the property due to destruction and erosion of the land, damage to improvements, loss of business and business profits, and loss of market value of the remaining land and improvements. The manner in which Defendant continues to use this property for the withdrawal of enormous amounts of fresh water threatens to continue in the future and constitutes a continuing nuisance. The injury and damage caused is permanent in that the subsidence and destruction of the land bridge and cessation or loss of flow of spring water are or may prove to be irreversible geologic occurrences, depriving Plaintiff of its full use and enjoyment of its property.
- 10. The subsidence and destruction of the land bridge and the spring flow cessation is the direct and proximate result of the massive withdrawals of water by the Defendant in the concentrated area immediately adjacent or near to Plaintiff's property.

- 11. As an alternative cause of action, the Plaintiff alleges that the subsidence and destruction of the land bridge and the spring flow cessation has been proximately caused by the negligence of Defendant in the following particulars:
 - a. In withdrawing massive quantities of water from beneath the land;
 - In conducting massive and excessive withdrawals of water from beneath the land, knowing that the Plaintiff's spring was fed by the Upper Floridan aquifer that exists beneath the parties' real property;
 - c. Ignoring evidence that water withdrawal in these amounts had previously caused land subsidence, and cessation of spring flows; and
 - d. In continuing to withdraw massive quantities of water from beneath the land after the destruction of the land bridge and after cessation of spring flow on Plaintiff's land.
- 12. Defendant was negligent in each and all of the above acts, conditions, and omissions, among others, and this negligence was a proximate cause of the Plaintiff's damages. Due to the negligence of the Defendant and the total indifference on the part of the Defendant to the rights of the Plaintiff, the Plaintiff has suffered damages resulting from the loss of its property, the erosion and destruction of its land, damage to its improvements, loss of business, and loss of the market value of Plaintiff's remaining property.
- 13. Due to the permanent and continuing nuisance created and being conducted by the Defendant and due to the negligence on the part of the Defendant, Plaintiff has been caused to suffer the injury and damage complained of above, and has been damaged in excess of the sum of \$15,000.
- 14. Plaintiff has no adequate remedy at law, in addition to recovery for damages here alleged, Plaintiff is entitled to injunctive relief and the permanent abatement of the nuisance alleged.

WHEREFORE, Plaintiff requests that:

- Defendant be forever enjoined from and restrained from continuing the nuisance and from withdrawing water in such large amounts as to cause damage, injury, and harm to Plaintiff;
- 2. Such nuisance be abated;
- Plaintiff recover damages against Defendant for maintenance of a nuisance which caused both temporary and permanent damage, and for negligence on the part of Defendant which proximately caused injury and damage to Plaintiff's property and business; and
- 4. Plaintiff recovers interest on the judgment from such date until paid, costs of suit, and all such other and further relief, general and special, legal and equitable, to which Plaintiff is justly entitled.

DEMAND FOR JURY TRIAL

Plaintiff demands a trial by jury for all issues so triable.

Conti Rehm Suwanee Bar No. 235007 Crehm@ddmrfor theinjured.com Danahy, Deloach, Milsap and Ravis Attorneys for Plaintiff 789 Spring Street White Waters, Suwannee 32301 (850) 444-4444 (phone) (850) 444-4445 (fax)

IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT, IN AND FOR FOSTER COUNTY, SUWANNEE

TASTEA BOTTLING COMPANY,

PLAINTIFF,

vs.

CASE NO. 11-CA- 445

IKRA YAITSO CURMUDGEON FARMS,

DEFENDANT.

ANSWER, DEMAND FOR JURY TRIAL AND AFFIRMATIVE DEFENSES

COMES NOW Defendant, by and through its undersigned counsel, and hereby answers and otherwise responds to Plaintiff's Complaint as follows:

- 1. Admitted for jurisdictional purposes only, otherwise denied.
- 2. Admitted.
- 3. Admitted.
- 4. Admitted that Plaintiff is the owner of all right, title, interest, use and possession in the real and personal property located at 1234 natural Bridge Road, the legal description of which is ______. The remainder of the allegations are denied.
- 5. Admitted that Defendant owns real property that adjoins or abuts the Plaintiff's real property. Admitted that the Defendant's address is 123 Strongberry Lane, White Springs, Suwannee, and the legal description of Defendant's land is _____. Admitted that Defendant has in the past and continues at present to pump subsurface fresh water from the Upper Floridan Aquifer which exists beneath the Plaintiff's and Defendant's properties. The remainder of the allegations in paragraph five of the Complaint are denied.

- 6. Admitted that a land bridge on Plaintiff's property collapsed on March 6th, 2010. Denied that Defendant caused the subsidence, sinking and permanent loss of the land bridge on Plaintiff's property. Without knowledge as to the remainder of the allegations in paragraph six of the Complaint.
- 7. Denied that Defendant caused cessation of spring flow on Plaintiff's property. Without knowledge as to the remainder of the allegations in paragraph 7 of the Complaint.
- 8. Denied.
- 9. Denied.
- 10. Denied.
- 11. Denied.
- 12. Denied.
- 13. Denied.
- 14. Denied.

AFFIRMATIVE DEFENSES

Defendant asserts the following affirmative defenses:

FIRST AFFIRMATIVE DEFENSE

Plaintiff was and is itself negligent and was and is the cause of its own injuries in withdrawing massive amounts of water from beneath Plaintiff's and Defendant's land causing or having the potential to cause sinkholes, land subsidence and cessation of spring flow on Plaintiff's land.

SECOND AFFIRMATIVE DEFENSE

Plaintiff's damages and/or injuries, if any, were caused by unforeseeable, superseding and/or intervening causes over which Defendant had no control, and for which it is not legally responsible or liable.

THIRD AFFIRMATIVE DEFENSE

The interruption of the flow of water to the Plaintiff's spring, and subsidence of Plaintiff's land, if caused by Defendant, was occasioned by lawful, reasonable, and beneficial use by Defendant of its property, and was in the public interest.

DEMAND FOR JURY TRIAL

Plaintiff demands a trial by jury for all issues so triable.

Conti Rehm Suwanee Bar No. 235007 Crehm@ddmrfor theinjured.com Danahy, Deloach, Milsap and Ravis Attorneys for Plaintiff 789 Spring Street White Waters, Suwannee 32301 (850) 444-4444 (phone) (850) 444-4445 (fax)

IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT, IN AND FOR FOSTER COUNTY, SUWANNEE CERTIFIE RIGIN TASTEA BOTTLING COMPANY, PLAINTIFF, vs. CASE NO. 11-CA- 445 IKRA YAITSO CURMUDGEON FARMS, DEFENDANT. **DEPOSITION OF:** DR. BILLIE CASH TAKEN AT THE INSTANCE: The Defendant/Ikra Yaitso Curmudgeon Farms DATE: April 12,2013 TIME: Commenced at 2:00 p.m. Concluded at 5:00 p.m. LOCATION: 301 South Main Street White Springs, Suwannee **REPORTED BY:** Veronica Hernandez Court Reporter, Notary Public 100% CORRECT STENOTYPE REPORTERS, INC. **301 SOUTH MAIN STREET** WHITE SPRINGS, SUWANNEE 32301

1	STIPULATIONS
2	The following deposition of Billie Cash was taken on oral examination, pursuant to notice, for purposes
3	of discovery, and for use as evidence, and for other uses and purposes as may be permitted by the
4	applicable and governing rules. Reading and signing were not waived.
5	* * *
6	Thereupon,
7	BILLIE CASH
8	was called as a witness, having been first duly sworn, was examined and testified as follows:
9	BY MR. BARNES:
10	Q. Tell us your name, please.
11	A. My name is Billie Cash.
12	Q. I assume you have had your deposition taken before.
13	A. Yes.
14	Q. I can presume you know that the two main reasons for taking depositions are one, for discovery
15	purposes, to find out what you know about this case and what testimony or opinions you may offer, and
16	second, for impeachment purposes in that you are under oath here and at trial so that contradictory
17	statements may be used by me to question your credibility at trial.
18	A. Yes, I understand.
19	Q. And I am sure you know that if I ask a question that doesn't make sense to you, you should ask me to
20	explain or clarify the question before you answer.
21	A. Of course.
22	Q. Ms. Rehm has previously furnished your curriculum vitae to me as part of discovery in this case.
23	Madam Court Reporter, would you please mark this as Exhibit "A" to this deposition? And I see that you
24	have your doctorate in Geology, is that correct?

- 25 A. Yes.
- 26 Q. Do you specialize in any particular area of geology?
- A. Hydrogeology is my area of specialization, and I consider myself to be a hydrogeologist.
- 28 Q. What does that mean?
- A. I specialize in studying and understanding how water interacts with and behaves in relation to the
- 30 land both above and below the surface.
- 31 Q. Dr. Cash, is this a true and correct copy of your most current curriculum vitae?
- 32 A. Yes, it is. It is completely up to date.
- 33 Q. Madam Court Reporter, would you please attach Dr. Cash's curriculum vitae to this deposition as
- 34 Exhibit "A". Dr. Cash, what is your primary occupation at present?
- 35 A. I am a tenured professor of Geology at Crane University.
- 36 Q. What courses do you teach?
- 37 A. This academic year I am teaching undergraduate courses titled "Dynamic Earth", "Historical
- 38 Geology", and "Hydrogeology". I am teaching two graduate courses. One is "Geostatistics", the other is
- 39 "Paleoecology". I also am supervising two students who are writing dissertations in the geology field.
- 40 Q. Do you hold any professional licenses?
- 41 A. Yes, I have kept my state of Suwannee professional geologist license in effect since I first acquired it
- 42 in 1995.
- 43 Q. What percentage of your work involves litigation consulting?
- 44 A. Probably about ten percent at present, but it has only been as much as ten percent in the last five

45 years or so.

- 46 Q. How many cases have you reviewed in the last five years?
- 47 A. Five. All of the cases have been relatively complex, and required extensive research and time48 commitments.

49 Q. In how many of these cases have you been retained by the Plaintiff?

50 A. Just this case.

51 Q. What do you charge?

52 A. \$400 dollars an hour for my time outside court, and \$500 an hour for in court testimony.

53 Q. Have you ever testified at trial before?

A. This will be my third time if the parties go to court in this case.

55 Q. I assume that you testified as an expert in the other two cases.

56 A. Yes, I testified as an expert.

57 Q. What makes you feel that you are qualified to testify as an expert in this particular case?

58 A. As I said, my specialization is the field of hydrogeology. Generally speaking, the field of hydrogeology 59 involves the distribution and movement of water, particularly groundwater, in the earth's crust and in 60 aquifers. Emphasis is given to water's chemistry, physics, mathematics, biology, and relation to the 61 geologic environment. Hydrogeology integrates geology, hydrology, chemistry, physics, mathematics, 62 biology, and engineering to understand the occurrence and movement of water in the complex 63 subsurface environment. Hydrogeologists predict future behavior of aquifers, and analyze past and 64 present aquifer performance. The issues in this case appear to involve questions of water drawdown 65 primarily from the Upper Floridan aguifer, whether the drawdown was excessive, whether the 66 drawdown caused collapse of the Plaintiff's land bridge, and cessation of spring flow on the Plaintiff's 67 land, and if so, who caused these things to happen, whether this was done knowingly or with reason to 68 know that these occurrences might take place, and whether they might occur again.

69 Q. Are you familiar with the geology in the area encompassing the Plaintiff's and Defendant's lands?

A. Yes, I am. Crane University, where I teach, is located in Foster County. I teach my students about the hydrogeology of the region, and over the years, I have performed many field studies concerning the hydrogeology of Foster County. My most recent experience with the 256 square mile area of Foster County that is in question in this case occurred in the spring of 2010 when I was asked to make an
investigation of the area relating to the problem in litigation here. I made several field trips to the area
during March and April of 2010.

76 Q. What were you asked to do in this case?

77 A. In addition to making the field trips, I was asked to review all of Southwest Suwannee Water

78 Management District's records and the tests the District performed concerning the frost/freeze event of

79 2010. I personally formed a dye test to trace water flow as it related to the issues in this case. I have

80 reviewed all of the depositions, including that of George/Georgia Franklin, Ikra Yaitso, and Lee Roberts.

81 Q. Have you come to any conclusions as a result of your work and review in this case?

A. Yes, it is my opinion that the Defendant caused the subsidence of the land bridge and was the cause
of spring flow cessation as well. It is also my opinion that further land subsidence and cessation of

spring flow could and will occur if subsequent further frost/freeze events occur and if Curmudgeon

85 Farms withdraws the same amounts of water during such an event.

86 Q. What is the basis of your opinion?

A. What is the basis of my opinion? That may take some time to explain, depending on how familiaryou are with the hydrogeology of the region.

Q. I usually tell witnesses to explain things to me as if I were a two year old, but in this case explain it to me as if I were a high school student. I'm not a man of math or science. I failed several math courses in high school, and didn't do much better in science. That's probably why I'm a lawyer instead of a geologist.

A. Okay, I'll start at the beginning, and go slow. I'm sure you'll let me know if I'm covering too muchground or being too basic for you. Have your heard of Pangaea?

Q. Is that one of those places they send you if you win the prize puzzle on Wheel of Fortune? ACaribbean island?

97 A. No. About 400 million years ago, Earth had one large land mass or supercontinent. We call that 98 supercontinent Pangaea. What we now know as Suwannee was near the middle of the supercontinent, 99 where a lot of tectonic action was taking place. Suwannee was located between what are now North 100 America, South America, and Africa. The supercontinent broke up around 200 million years ago, and the 101 nascent beginnings of North America broke away with Suwannee. Suwannee, as you know, is a 102 peninsula. After Pangaea broke up, and what we now call North America separated from the super 103 continent, Suwannee slowly subsided into a low continental platform. Suwannee was underwater for 104 long periods during times when the polar caps melted and sea levels rose.

Q. I saw a television special on Edgar Cayce. Cayce predicted Suwanee will sink completely in thefuture. Is that true?

107 A. Who is Edgar Cayce?

108 Q. The world's most famous psychic if you don't count Nostradamus or Sylvia Brown.

109 A. I don't believe in psychics, the paranormal or superstition. I believe in science.

110 Q. I'm sorry. Please continue.

A. Suwannee's ancient rocks from its time as part of Pangaea are now deep underground. You can only

reach them by drilling. Those rocks now form the basement for Suwannee's carbonate platform.

113 Q. One thing at a time, please. What is a basement?

A. "Basement" is a geological term, and means the rocks below a sedimentary platform or cover. A basement consists of the rocks below sedimentary rocks or sedimentary basins. Basement rocks are very deep, extremely old rocks that lie under the continents and oceans. They are primarily metamorphic and igneous rocks, but can also be sedimentary.

118 Q. Explain metamorphic, igneous and sedimentary, please.

119 A. Let's start with metamorphic rock. A large part of the earth's crust is made up of metamorphic rock.

120 Metamorphic rock is formed when rock undergoes physical and chemical changes due to application of

sufficient heat and pressure. The process is called metamorphism, and the new rock is called 121 122 "metamorphic". Rock can become metamorphic rock simply by being deep beneath the Earth's surface 123 and subjected to high temperatures and the great pressure of rock layers above. Metamorphic rock can 124 also form due to tectonic processes such as continental collisions. It can form when rocks are heated up 125 by the intrusion of hot molten rock called magma coming from the Earth's interior. Basalt is a type of 126 metamorphic rock. The second type of rock I mentioned—igneous—forms when magma or lava cools. 127 Granite is an example of igneous rock. The third type of rock is sedimentary. Sedimentary rock 128 probably makes up only about eight percent of the total volume of the Earth's crust. Sedimentary rocks 129 are formed by the accumulation of sediment. Various processes cause mineral or organic particles to 130 settle and accumulate, eventually forming rock. Limestone and dolomite are examples of sedimentary 131 rock. Suwannee's ancient rocks from its time as part of Pangaea are now deep underground. They are 132 part of the Suwannee "basement", which is made up of all three of these types of rock—metamorphic, 133 igneous, and sedimentary. You can only reach them by drilling. Suwannee's carbonate platform rests 134 on top of this basement.

135 Q. What is a "carbonate platform"?

136 A. A sedimentary body composed of calcareous or calcium carbonate deposits. Autochthonous, sessile 137 creatures are those that grow and die in one place. Their skeletons build up reefs. Also, certain 138 organisms, usually microbes, can induce carbonate precipitation through their metabolism which builds 139 reefs. Carbonate platforms are not present in places where there are limiting factors to the life of reef-140 building organisms. They are only created in tropical places, and Suwannee's carbonate platform was 141 created after Pangaea broke up, and during time periods when Suwannee was under warm waters 142 where limestone deposits had the opportunity to build. This building process took place over millions of 143 years. No surface rock in Suwannee is older than the Eocene age, which was about 40 million years ago.

Q. But what I see when I look out over Suwannee, no matter where I go, is dirt. Granted, I have scraped
myself on some of those limestone rocks when I've gone tubing in some of the local rivers when the
water is low.

147 A. The view you describe is just the exposed surface or mantle overlying the large, carbonate platform.

148 The carbonate platform is mostly submerged, and is over 3,000 feet deep in some places. You will find

149 carbonate rocks, limestone or dolomite, to depths greater than 500 feet in Suwannee. And what you

150 called "dirt", we geologists think of as a mantling sequence of relatively insoluble sand and clay deposits

151 which vary in composition and thickness throughout Suwannee.

152 Q. I guess I am starting to wonder what all of this has to do with why you believe my client caused the

- 153 Natural Bridge collapse and cessation of spring flow on Tastea land.
- 154 A. We need to cover at least three more areas for me to explain that to you.
- 155 Q. What are those areas?

156 A. Karst, aquifers, and groundwater extraction.

157 Q. Okay, start in whatever sequence you think will make it easier for me to understand.

158 A. Let's start with karst, but we can't talk about karst without talking about water as well. When rain 159 passes through the atmosphere, it picks up carbon dioxide. Carbon dioxide dissolves in water. When 160 rain reaches the ground, it can pick up even more CO2. The water and carbon dioxide combine to form 161 a weak carbonic acid solution. Mildly acidic water acts on weakly soluble bedrock such as carbonate. 162 Carbonates are a large group of minerals which have as a common constituent the carbonate ion (CO3). 163 When combined with other elements these carbonate ions form various carbonate minerals, of which 164 the three most common are calcite, aragonite (CaCO3), and dolomite (CaMg(CO)(2). Calcite is by far the 165 most abundant carbonate mineral. It occurs as enormous and widespread sedimentary deposits in 166 which it is the predominant mineral. In pure limestones, some of which occur in Suwannee, calcite 167 makes up 98 to 100 percent of the rock. Practically all carbonate rocks in Suwannee are limestone or

168 dolomite, with limestone predominant. Limestone, though usually thought of as being solid rock, often 169 has a granular texture and considerable porosity and permeability. Groundwater flow through granular 170 and porous limestone is, therefore, similar to flow through sand. In other words, limestone becomes 171 chemically weathered by mildly acidic water. When you think of surface water flow, you might normally 172 think of rivers, streams and lakes. Water eventually flows towards the ocean. But the long dissolution 173 of carbonate rock such as limestone and dolomite creates a topography called "karst". The name comes 174 from the Karst Plateau of Yugoslavia which has caves, sinkholes, and other types of openings created 175 over time by the acidic action on carbonate rock. In a karst landscape, drainage takes place via sinkholes, springs, caves, disappearing streams and underground drainage channels. Suwannee has a 176 177 karst terrain because it has a carbonate platform that has been dissolved in places by slightly acidic water.¹ This dissolution has taken place over millions of years. You find all of these things—sinkholes, 178 179 springs, caves, disappearing streams and underground drainage channels - in Suwannee. In fact, you 180 find them right here in Foster County, and even more specifically, underlying the Plaintiff's and 181 Defendant's lands.

182 Q. What do you find under their lands?

A. Let's start with what you find under Suwannee generally. Now is probably a good time to talk about 183 aquifers. Aquifers in general are natural geological bodies that contain groundwater. There are 184 185 different nomenclatures for the aquifers in Suwannee. They may go by different names, but it is fair to 186 use the terms surficial, intermediate, and Floridan aquifers. We also need to discuss unconfined and 187 confined aquifers. The surficial aquifer equates to the unconfined mantle that overlies Suwannee's 188 carbonate platform. The surficial aquifer, where it exists, is comprised largely of quartz sand, clay, 189 organics and shell. The overlying mantle is not thick enough in some areas of the state to have an 190 appreciable water table or to serve as a water resource.

¹ Lane, E., 1986. Karst in Florida: Florida Geological Survey, Tallahassee, Florida, Special Publication no. 29.

191 Q. I don't understand.

192 A. First, I should tell you that water partially or completely fills the cracks, pores, and fissures and other 193 voids that lie close to the Earth's surface. In most places there is an unsaturated zone in which both 194 water and air fills the voids. But at greater depths, the voids become fully saturated with water. The 195 top of this saturated zone is called the water table. The water within the saturated zone is what we call 196 groundwater. The term aguifer refers to subsurface deposits and geologic formations or zones that will yield water in economically significant quantities. A confining layer or bed refers to a low-permeability 197 198 deposit, such as clays, or geologic formation, such as layers of rock, that restricts the movement of 199 groundwater. A confined aquifer is one that lies between two confining layers, and an unconfined 200 aquifer is one in which the uppermost boundary is the water table. Unconfined aquifers are usually located near land surface and confined aquifers are located at depth.² As I told you, there are three 201 202 types of aquifers, or water holding units if you will, in Suwannee. The uppermost aquifer in Suwannee is 203 the surficial aquifer where water can be extracted so long as the overburden or mantle is sufficiently 204 thick and the water table sufficiently high. The surficial aquifer is not a confined aquifer. The surficial 205 aquifer is primarily recharged by precipitation or rainfall. The intermediate aquifer—and this aquifer is 206 not found in all parts of Suwannee—is situated between the surficial aquifer and the Floridan aquifer. 207 The intermediate aquifer holds water that is confined or semi-confined by clays or rock. The 208 intermediate aquifer is recharged by rainwater or water draining downwards from the surficial aquifer 209 or from lakes and streams. The third aguifer is the Floridan aguifer which runs under the whole state of 210 Suwannee, and also under parts of Alabama, Georgia, Mississippi, and South Carolina. The Floridan 211 aquifer is a confined aquifer. Leakage from the overlying aquifers recharges the Floridan aquifer system 212 and occurs primarily in unconfined or semi-confined well-drained upland areas characterized by poorly

² Barlow, P.M., and Leake, S.A., 2012, Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow: U.S. Geological Survey Circular 1376, p. 2,

developed stream drainage and sinkholes.³ Recharge is by infiltration, or seepage downward, into the
rock formations.

Q. Do you mean the Floridan aquifer is a massive underground river running the length and breadth ofSuwannee?

217 A. No, and I wish I had a nickel for every time someone asked me about underground rivers. The 218 Floridan aguifer lies under the surficial and any intermediate aguifer, and is part of Suwannee's 219 carbonate platform that we discussed earlier. There is an Upper Floridan aguifer, and a Lower Floridan 220 aquifer. Don't think of it as a river. Think of it as a three dimensional piece of Swiss cheese. Instead of 221 cheese, the slice is primarily made of limestone and dolomite rock. Although confined, the upper layer 222 of this Swiss cheese like rock is highly permeable and is composed of vertically persistent carbonates. 223 Water drains through this upper layer and is collected into holes, open spaces, channels, and well 224 developed cavernous intervals. This 3D rock cheese slice can hold massive volumes of water which is 225 generally very clean, and potable. The lower Floridan, as implied by its name, underlies the upper 226 Floridan, and is mostly separated from it by a confining unit of not very permeable evaporate material such as gypsum and anhydrite. This middle confining unit restricts the movement of water between the 227 228 Upper and Lower Floridan aquifers. The Lower Floridan aquifer is less permeable than the Upper 229 Floridan aguifer. It contains water that is more mineralized and much of the Lower Floridan contains 230 saltwater. Most of it is not potable. In fact, in south Suwannee, some of the cities use the Lower 231 Floridan aguifer to store wastewater.

Q. What does this have to do with Tastea Bottling Company's complaint concerning the land bridge andthe spring?

A. When you pump excessive amounts of water from the aquifers you run into problems. Dry wells, for
instance. Wells for residential use may extend only into the surficial aquifer and drawdown may cause

³ Marella, R.L., and Berndt, M.P., 2005, Water withdrawals and trends from the Floridan aquifer system in the southeastern United States, 1950-2000: U.S. Geological Survey Circular 1278.

water level to be lower than pump intake. And if there is too much drawdown in the aquifers, you endup not only with dry wells, but spring flow reversal, land subsidence, and sinkholes as well.

Q. I think I understand what you are saying about dry wells. Shallow well pump heads don't work if
they can't draw water. But how does excessive drawdown cause spring flow reversal, land subsidence
or sinkholes?

241 A. Let's talk about sinkholes first. Sinkholes are closed depressions in the land surface formed by dissolution of near-surface rocks or by the collapse of the roofs of underground channels and caverns. 242 243 They are a common geologic feature in places with soluble rock surfaces, and in fact are the most 244 common feature of a karst terrain. There are basically two ways sinkholes form. One type of sinkhole, 245 called a cover subsidence sinkhole, develops slowly and expands gradually in response to dissolution of 246 limestone. This type of sinkhole is usually shallow and bowl shaped and occurs where limestone is 247 exposed at land surface or is thinly covered or the limestone is covered by a layer of unconsolidated 248 sand that slumps downward to fill the sinkhole as it forms. The other type of sinkhole, called a collapse 249 sinkhole, can develop very rapidly and usually forms in response to some kind of human activity. 250 Collapse sinkholes can also result after episodes of water level or water pressure fluctuation that result 251 from torrential rains and floods or the opposite, severe drought with lowered water levels. Water, and 252 its relationship to the overburden and bedrock, is the controlling factor under flood or drought conditions.⁴ 253

254 Q. What do you mean, water is the controlling factor?

A. Buoyancy and supportive force. Sand and clay weigh 40% less when immersed in water. Objects immersed in water weigh less because of the effect of buoyancy. Saturated materials below the water table have significant supportive forces, which tend to forestall collapse of overburden into the cavities that exist in karst terrain. In a drought you lose that supportive force, which can cause a collapse of the

⁴ Lane, *supra* note 1, at 29.

259 overburden resulting either in land subsidence or a sinkhole depending on the degree of collapse. 260 However, in a flooding situation, the role of water can change from one of adding support to that of 261 adding more burden and stress on the karst mantle. The increased height of the water in the overburden causes increased water flow downward away from the cavity and may be enough to trigger 262 collapse of the overburden into a cavity.⁵ Two examples of collapse sinkholes made national news 263 264 recently. One was the sinkhole that developed overnight in Seffner. That sinkhole swallowed up a 265 man's bedroom along with the sleeping man. The other was the sixty foot sinkhole that destroyed part 266 of a resort near Disney World. Neither of those two sinkholes were related to the 2010 frost/ freeze 267 event. However, human activity can cause collapse sinkholes. Some examples are additional loading of 268 the land surface by construction of surface-water impoundments or buildings, abrupt drops in the aquifer water level caused by massive water withdrawal or even harmonic loads produced by the 269 vibratory action of passing trains or heavy construction equipment.⁶ Heavy equipment traffic and 270 271 blasting can trigger sinkhole collapse.⁷ So, back to your question as to how massive water drawdown 272 can cause spring flow reversal, land subsidence or sinkhole formation. During the late February freeze event, Curmudgeon Farms caused the Natural Bridge collapse and caused the spring on Tastea's land to 273 274 reverse flow. It was a direct result of Curmudgeon's Farm's massive groundwater withdrawal from the Upper Floridan aguifer under the Defendant's and Plaintiff's lands. 275

Q. Why do you say that? We've had both flooding and drought in the immediate area of Tastea Bottling Company's property according to my expert. Flooding from Tropical Storm Fay in 2008, severe drought in 2006-2007. These would have caused water pressure and stress issues in the area of Tastea's property.

⁵ Id. at 29.

⁶ Miller, J. A., 1990. Ground water atlas of the United States: Alabama, Florida, Georgia, South Carolina. *HA 730-G*, U.S. Geological Survey, Washington, D.C.

['] Lane, *supra* note 1, at 25.

A. I am familiar with that, but the subsidence of the land bridge and cessation of spring flow were not results of a natural event. These events were man-made, clearly caused by Curmudgeon Farms' sudden, massive withdrawals of water from the aquifer.

283 Q. What proof do you have of that?

A. Proximity of time and place. You will recall the land bridge collapsed on March 6th. Curmudgeon 284 285 Farms has 750 wells on its property. There were seven major groundwater pumping periods over 11 consecutive days in February-from February 17th through the 28th. Almost 2.7 billion gallons of 286 287 groundwater were withdrawn from the Upper Floridan aquifer within the 256 square mile land area 288 which encompasses both the Curmudgeon Farms and the Tastea Bottling Company properties. 289 Curmudgeon Farms draws by far the most water from the Upper Floridan aquifer of all the legal 290 permittees in that 256 square mile area. Tastea Bottling Company would be second, but a very distant 291 second, in utilizing that part of the Upper Floridan aquifer that underlies that 256 square mile range. 292 Those two companies are in a very remote area. All of the other persons in the area are utilizing the 293 surficial aquifer, not the Upper Floridan aquifer. They are small, individual, domestic users who use so 294 little water that they are not even required to have a permit. The Southwest Suwannee Water 295 Management District permitted Curmudgeon Farms to withdraw 891 million gallons of water a day from 296 the Upper Floridan aquifer during the 2010 freeze event. Compare that to the 44.29 million gallons a 297 day they were permitted for normal use. The maximum water drawdown during the freeze event was 298 54.67 feet. The rapid water level decline dewatered the shallow upper limestone in the area, resulting 299 in reduced upward supporting pressure on the overlying confining units and increased flow from the 300 overburden by seepage through voids. It is likely that much of the water that recharges the surficial aquifer flows vertically to subsequently recharge the Upper Florida aquifer through voids in the 301 302 confining layer and through sinkholes. Again, the loss of buoyancy and upward water pressure 303 promotes the potential for sinkhole activity. Even with any downward drainage and other recharge

events, it took nearly 20 days for the Upper Floridan in the area encompassing the parties' properties to
 recover to the pre-freeze water-level elevation after the final day of pumping.

306 Q. Where do you get those figures?

A. The Southwest Suwannee Water Management District has a regional observation monitoring well program. The acronym is ROMP. There is a monitoring well which is centrally located to the area of maximum drawdown—ROMP #1. The hydrograph for this well shows that the minimum elevation for the relevant time period was recorded February 28th, 2010 at -0.68 NGVD. The pre-freeze water level at DV-1 was approximately 53.99 feet NGVD.

312 Q. What is NGVD?

A. National Geodetic Vertical Datum, commonly referred to as sea level. This is a method of measuring

heights relative to a zero elevation surface. A vertical datum is technically a surface of zero elevation to

315 which heights of various points are referred in order that those heights be in a consistent system.

316 Q. There weren't any dry well complaints made by Tastea, were there?

A. No, even though the spring itself quit flowing, Tastea's wells all extended deep enough into the Upper Floridan aquifer, just like Curmudgeon Farms' wells, and Tastea was able to continue pumping water. The 750 dry well complaints were made by residential users in the area of the maximum drawdown. That's because they were only drawing water from the surficial aquifer which was almost completely dewatered. They were not pumping water from the Upper Floridan aquifer.

322 Q. Did any sinkholes form during this time period excluding any complaints made by Tastea?

A. Yes, there were approximately 140 cover collapse sinkholes, all within the immediate vicinity of the

324 maximum drawdown as well.

325 Q. How many wells does the Tastea Bottling Company have on its property?

326 A. Three.

327 Q. How much water does Tastea draw from the aquifer?

A. The Tastea Bottling Company permit allows it to withdraw a maximum of 100,000 gallons a day, or three million, one hundred thousand gallons a month. Freeze periods do not increase or decrease the permitted drawdown.

331 Q. Couldn't Tastea's consumptive use have caused the land subsidence or spring problem?

A. This usage is miniscule compared to Curmudgeon Farms'. On a macro-national scale, water bottling from springs and connected groundwater is a very small part of overall water extraction. Groundwater withdrawals for bottled water production represent far less than one-tenth of one percent of the total groundwater withdrawals in the United States. Agricultural use of groundwater for irrigation is over 67% of the total groundwater withdrawals.⁸ Tastea had no water or subsidence problems until Curmudgeon Farms began excessive pumping during the February frost/freeze event. Any effect Tastea had on the aquifer during the relevant time period would have been de minimis.

Q. I'm still not getting it. Wasn't there already a sinkhole on Tastea's property, in the vicinity of Natural
Bridge, before the freeze event?

341 A. The St. Luke's disappeared into a sinkhole at Natural Bridge. It reappeared about a half mile to the 342 south at St. Luke's River Rise, as a spring fed river. The river became considerably larger south of the 343 bridge. This is one of the reasons we know the river is hydraulically connected to the Upper Floridan 344 aquifer. The springs resulted from water flowing up from the aquifer into fissures and holes in the 345 confining unit. Prior to the massive water drawdown, water pressure in the confining unit was sufficient 346 to force the water upward and above ground through joints, fractures, fissures, and pipeholes in the 347 confining unit. The spring at issue in this case, the one that ceased to flow, is near the river on Tastea 348 land.

349 Q. Can you explain to me what the bridge is, or rather, was?

⁸ Noah D. Hall, <u>Protecting Freshwater Resources in the Era of Global Water Markets: Lessons Learned from Bottled</u> <u>Water</u>, 13 U. Denv. Water L. Rev. 1, 11 (2009).

350 A. Yes. The land bridge is, or was, a geological formation that extended from one side of the river over 351 to the other side of the river. Natural Bridge was what was left of the roof of an underground cavern. 352 The bridge was formed over many years by dissolution of the weaker limestone in the cavern roof. 353 Stronger or more resistant portions of the rock were left in place. This is the land bridge that completely 354 collapsed while the Civil War reenactment was taking place. The cavern roof collapse took place six days 355 after the end of the freeze event. Now most of the St. Luke's River flows into a very large sinkhole with 356 a circular flow, and the remainder flows over the sinkhole until the overground portion of the river 357 reunites with the underground portion at the River Rise. The river at that point continues on to the Gulf 358 of Mexico.

359 Q. And you're telling me that the water drawdown during the freeze is the cause of Natural Bridge 360 collapse and also the reason the Tastea spring stopped flowing?

A. Within a reasonable degree of scientific certainty, yes, I am.

362 Q. Wasn't that bridge outside the area where the other 140 collapse sinkholes developed?

363 A. Yes. My understanding is that all of the other collapse sinkholes developed within a ten mile radius 364 of the maximum drawdown area. The Natural Bridge was approximately one mile outside that radius. But remember, the Upper Floridan Aquifer not only extends under Tastea and Curmudgeon Farm 365 properties, but also under the St. Luke's River bed, and there was a more than fifty foot drop in the 366 367 aquifer in the immediately preceding time period. That bridge had been supported by upward water 368 pressure before the collapse. This relatively sudden drop in upward pressure and loss of buoyancy 369 caused the cavern roof to collapse. The recharge to the aquifer at and through the sinkhole caused the 370 sinkhole to enlarge. The drop in the river's water level created a loss in water pressure and buoyancy that formerly supported the land bridge or cavern roof. Curmudgeon's large capacity wells were 371 372 installed in an area that had direct hydraulic connection with the sinkhole that was under Natural 373 Bridge. As the cone of depression enlarged, the aquifer began recharging from the river.

374 Q. Do you know for a fact that there was a direct hydraulic connection?

A. It is well known that well pumping can draw streamflow into an underlying aquifer. This phenomenon is known as "depletion" or "capture". If reductions in groundwater levels near a hydraulically connected stream are large enough, streamflow will be induced to flow into the aquifer toward the well. Captured streamflow consists of two possible components: groundwater that would otherwise have discharged to a stream or river and streamflow that is drawn into an aquifer because of pumping—"induced infiltration" of streamflow. I have an illustration for you to demonstrate what I am talking about. Look particularly at Figure 1C.⁹

Q. Let's attach that illustration as Exhibit "B" to the deposition, Madam Court Reporter. Go on, you
 were explaining the hydraulic connection?

384 A. When the Curmudgeon wells pumped water from the Upper Floridan aquifer, groundwater levels 385 around the wells began to decline, creating what is called a "cone of depression". A cone of depression 386 looks like an inverted ice cream cone that extends outward from a well or wells. The water level 387 declines in the present case were greatest within a ten mile radius of the area of maximum drawdown. 388 This is where most of the sinkholes formed. The cone of depression extended to within one mile of the 389 St. Luke's River at Natural Bridge. It is logical to assume that the cone had extended far enough to 390 capture water from the St. Luke's. But we don't need to make assumptions, because you will recall I 391 told you I ran dye tests.

392 Q. What is a dye test?

A. Rhodamine dye is a fluorine dye which is often used to determine the rate and direction of water flow. In this case, rhodamine dye was injected into the St. Lukes' sinkhole. The dye traveled through the sinkhole and showed up in ROMP #1. Recall that ROMP #1 is a monitor or test well which is drilled into the Upper Floridan aquifer. Curmudgeon Farms has many wells located near ROMP #1. The Tastea

⁹ Barlow, *supra* note 2.

spring is located even closer to the cone of depression than the land bridge was. The spring is withinone half mile of the maximum drawdown area.

399 Q. Can you explain what a spring is, how it forms and how it works in layman's terms?

400 A. Yes. Over one hundred fifty billion gallons of rainwater falls in Suwannee every day, more than any 401 other state in the nation except Louisiana. About 70% of this rainfall returns to the atmosphere in the 402 form of evaporation—water from lakes, rivers and the ocean being converted into water vapor by the 403 heat of the sun and from transpiration—tree and plants releasing water to the atmosphere. Rainfall 404 may also result in surface or stormwater runoff if the underlying geological formation isn't conducive to 405 water percolating downwards. For instance, clay formations are relatively impervious. Runoff in those 406 situations ends up in sheet flows to lakes, rivers, wetlands, and the ocean. But in Suwannee, we have 407 loose sandy soils and underlying formations of porous carbonate bedrock. Rainfall in Suwannee usually 408 soaks directly into the ground. It travels downwards in a process we call percolation, flowing through 409 small spaces between rocks and soil particles. The water eventually saturates the Swiss cheese 410 structure of the Upper Floridan aquifer. This is a process I've mentioned earlier. We call it recharge. 411 The overall land surface area where water seeps underground and contributes rainwater to a specific spring is called a spring's recharge basin. Springs usually form in areas where the confined aquifer is 412 413 close to the surface. Water pressure in the aquifer forces water upwards and onto the surface through 414 openings in the ground. This is caused by the differences in the slope of hydraulic gradient in the 415 aquifer.

416 Q. I don't understand--hydraulic gradient?

A. Ground water moves as a result of a pressure differential, and flows from areas of higher pressure to areas of lower pressure. The total amount of pressure within a column of ground water, frequently referred to as head, is generally expressed in feet or meters of water above a datum. One of the factors that controls the rate of ground water movement is the hydraulic gradient, which is defined as the

difference in total head over a specific distance.¹⁰ As rain falls and percolates underground, it exerts
pressure on the water already in the aquifer. A channel leading from the aquifer to the land surface will
form a spring if the artesian head in the aquifer is sufficient to raise the water above the land surface.
Water is forced to the surface through natural openings.¹¹ This was the case with the Tastea spring
before the serious drop in water level in the Upper Floridan aquifer which fed the spring.

426 Q. Please explain.

A. As the withdrawal from wells was increased, beginning during the 2010 frost/freeze, the natural balance between recharge and discharge was upset, and a decline of the piezometric surface resulted. If the piezometric surface declines to a level below the vent of the spring, as it did in the case of the Tastea spring, spring flow ceases. The decline of the piezometric surface, in turn, caused the discharge of the spring to decrease progressively until it finally ceased.¹² Instead of water pressure from within the aquifer forcing water to the surface in the form of a spring, the reverse was true—water pressure had

433 dropped in the aquifer and spring flow reversed.

434 Q. What does piezometric surface mean?

435 A. It is the imaginary surface to which water from a given aquifer will rise under its full static head.

436 Q. You're making my head hurt. Didn't the spring return?

437 A. Yes, about three weeks after the end of the freeze event, consistent with water levels in the Upper

438 Florida aquifer returning to normal levels. But spring flow cessation will occur again if pumping takes

439 place at the levels of the 2010 frost/freeze event. If you are taking more groundwater out of the

440 aquifer through pumps than is being replaced by recharge, the water table or water level in the aquifer

441 is going to drop.

¹⁰ Luke W. Harris, P.E. & Christopher J. Sanchez P.G., *Considerations for Analyzing Colorado Ground Water: A Technical Perspective*, 15 U. Den. Water L. Rev. 105, 110 (2011).

¹¹ *Florida's Springs*, Floridasprings.org http://www.floridasprings.org/loearn/journey/getting (last visited January 21, 2014).

¹² Peek, H.M., 1951. Cessation of flow of Kessengen Spring in Polk County, Florida. In: Water resource studies. Florida Geological Survey Report of Investigations No. 7, Tallahassee, FL.

442 Q. Weren't all of these wells and the water drawdowns approved by the Southwest Suwannee Water443 Management District?

A. We know that they did approve all of Curmudgeon Farm's wells and the amount of water that could 444 445 be withdrawn. This approval included the wells that were located in the cone of depression or 446 maximum drawdown radius. Also, as you probably know, the geologist who approved those wells was 447 subsequently fired from the Southwest Suwannee Water Management District. They found out he had falsified his resume. It turned out he had never gotten his bachelor's degree in geology from the 448 449 University of Alabama as he claimed. He had gotten his license in Suwannee by endorsement rather 450 than by taking the Suwannee professional geologist's examination. You do know the Governor appoints 451 the Water Management District Board, and the Board is responsible for staff hires. My understanding is 452 this alleged geologist was the nephew of the person who was Board president at the time of hire. There 453 were also rumors that this man was taking bribes from entities that wanted quick well approval. 454 Interestingly, when I went to the Water Management District to look at the well and water permitting 455 file for Curmudgeon Farms, I found that it had disappeared, and it hasn't been found to date.

Q. So you don't think these were simply natural events caused by weather events, the effects of rivererosion or natural acidic solution activity.

A. Absolutely not. There were no flooding or drought conditions immediately preceding the collapse.
And as far as the land bridge goes, as far as I know, no one reported any signs of impending collapse or
subsidence.

461 Q. What signs are you referring to?

462 A. Things like vegetative stress, ponding of rainfall, misalignment of structures, or turbidity in well water463 in the area, all of which are indications that pre-collapse subsidence may be in progress.

Q. I want you to assume that is has been the custom and best management practice to allow water
drawdowns to prevent freeze damage to strongberries. Do you believe that the water drawdown by
Curmudgeon Farms during the February 17 to February 28 frost/freeze event was reasonable?

A. Of course not. It may have seemed reasonable to Curmudgeon Farms, but I don't think it was reasonable in relation to what it did to the landowners whose wells went dry, who had sinkholes form on their property, or to Tastea who lost the land bridge and whose spring ceased to flow. Besides, I heard that they left a lot of those berries in the fields to rot. I also am aware that there are other methods, albeit more expensive, to prevent crop frost/freeze damage such as crop covers, foam insulation, etc.

Q. Then I guess I already know your answer to my next question, but I'll ask it any way. Do you think
Curmudgeon Farm's drawdown for frost/freeze was beneficial.

475 A. My answer is the same.

476 Q. Do you think the frost/freeze water drawdown was in the public interest?

A. My answer is the same except I would add that it cannot be in the public interest to have what appears to be a permanently declining water level in the Upper Floridan caused by excessive drawdowns for agricultural use. Many people and entities draw water from the Upper Floridan besides the parties involved in this case. The public water utilities come to mind first, but there are many other users who if not already affected, could be in the future if the aquifer is not able to recharge sufficiently to meet all the new need. You know Suwannee is now the third most populated state in the nation.

483 Q. Thank you. I don't have any further questions.

- 484 **MS. REHM:** I have no questions.
- 485 (Deposition concluded at 5:00 p.m.)

486

487

Dr. Billie Cash, Ph. D

Billie Cash

EXHIBIT A

Billie Cash

Objective			
Professor of Geological Sciences			
Experience			
1995-Present	Crane University		
Professor, Department of Geological Sciences			
1984-1995	Suwannee State University		
Associate Professor, Department of Geological Sciences			
1983-1984	Cedar University		
Assistant Professor, Department of Marine Geology and Geophysics			
1982-1983	Cedar University		
Postdoctoral Researcher, Department of Marine and Geology and Geophysics			
1978-1982	Cedar University		
Graduate Research Assistant, Department of Marine Geology and Geophysics			
1975-1977	St. Catherine University		
Graduate Research Assistant, Department of Geology			
1984-1995	Suwannee State University		
Associate Professor, Department of Geological Sciences			
1984-1995	Suwannee State University		
Associate Professor, Department of Geological Sciences			
Education			

1995

Crane University

Ph.D Geology Science

1983

St. Catherine University

Master's in Science, Geology

1978

Cedar University

Bachelor's in Science, Geology

Certification

Initial License: 12/20/1995

Expires: 09/2023

Geologist P.G. 2153

State of Suwannee

Honors and Awards

- 2006 Lenderhand Distinguished Mentor Award
- 2005 Fellow-Chemical Geology Society
- 2000 Fanderbelt Lecturer: Chemical Geology Society
- 1999 Distinguished Service Award, Chemical Geology Scholars
- 1987 Presidential Science Researcher Award, Greater Science Foundation.
- 1983 L.B. Russel Prize, Crane University.
- 1981-1982 Rocks Fellowship, Crane University.
- 1977-1978 Groundwater Scholarship, Department of Geology, St. Catherine University
- 1975 Rhi Teta Lappa, Cedar University

Professional Society Service

2009 None

2008 None
2001-2007 Editor in Chief- Chemistry & Geology (heavy)
1999-2007 Associate Editor, Geoaqua (light)
2002-2004 Fellows Nomination Committee (Chemical Geology Society) (moderate)
1999-2001 Aqua Medal Committee (Chemical Geology Society):member/chair (light)
1997-2000 Chemical Geology Society, Board of Directors (moderate)
1995-1999 Editor: Chemical Geology Today(heavy)
1995-1999 Publications Committee: Chemical Geology Society (moderate)
1995-1996 Sandy Ground Report, National Research Council (moderate)
1993-1997 Associate Editor, Study Geology (light)
1993-1996 Associate Editor, Sandy Journal (moderate)
1993-1996 U. S. Geodynamics Committee, Geology Board (moderate)

1991-1996 Associate Editor, Study Geology (moderate)

1990-1995 Associate Editor, Geological Today (moderate) 1990-1992 Membership Committee: Mineralogists United(light) 1989-1992 Associate Editor, Sandy Journal (moderate)

Invited Lectures

1999 Industrial Consortium on Producibility of Devonian Shale Gas, "Hydrogeologic Controls on Biogenic Gas Occurrence in the Louis Basin"

1995 University of South Suwannee, Dept. of Geology Seminar Series, "Hydrogeology of Mid-Continent Sedimentary Basins".

1995 Cedar University, Departmental Colloquiem Series, "Hydrogeology and Gas Production from the Antrim Shale".

1995 Gas Research Institute, Project Advisory Group Workshop, "Hydrogeochemistry of Devonian Shale Gas Production, Midcontinent, USA".

1994 Gas Research Institute, Emerging Resources Team, "Hydrogeochemistry of the Antrim Shale; a Progress Report".

1993 Gas Research Institute, Emerging Resources Team, "Hydrogeochemistry of the Antrim Shale; guiding exploration with chemistry"

Publications

1979 Sorse, W.W., M. Lewis, B. Cash, M. Kaminsky. Calcite in seawater & interaction with magnesium. Science 233: 904-905.

1986 Cash, B. Relative efficiency of precipitation and carbonate dissolution: A chemistry progress report. SPM Special Publication, No. 99, Organic Matter, (C. Smith, editor): 1-11.

1997 Cash, B., Duai, M.A., Martin, L., and Hong, T., Hydrogeochemistry of the Antrim. Final Report, Tas Research Institute, 5093-220-2704, pp 93

2006 Apple, C.J., and Cash, B. Paleowaters in aquifers: geochemical evolution of groundwater. Geochemical Journal, vol 70, p. *2374-2479*.

2007 Simon. E, Ku, K., and Cash, B. Geochemistry of shallow groundwaters in temperate glaciated watersheds.. Geo Society Bulletin, vol 259, p. 507-528

2010 Cash, B., Quantitative Hydrogeology: Groundwater for Engineers, Academic Press, Inc. Orange, Suwannee.

2012 Cash, B., Groundwater Hydrogeology, First Edition, Johnson & Family.

EXHIBIT B

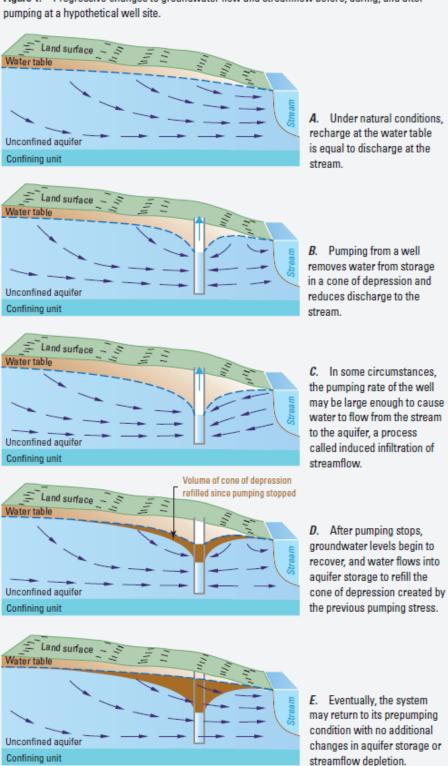


Figure 1. Progressive changes to groundwater flow and streamflow before, during, and after

1	CERTIFICATE OF OATH
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	
6	I, the undersigned authority, certify that said designated witness personally appeared before me
7	and was duly sworn.
8	
9	WITNESS my hand and official seal this 12 th day of April, 2013
10	
11	` <u>s/ Veronica Hernandez</u>
12 13	Veronica Hernandez Court Reporter
14	1-800-934-9000
15	(850) 878-3333
	28

1	CERTIFICATE OF REPORTER
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	I, VERONICA HERNANDEZ, Court Reporter, certify that the foregoing proceedings were taken
6	before me at the time and place therein designated; that my shorthand notes were thereafter
7	translated under my supervision; and the foregoing pages number 1 though 27 are a true and correct
8	record of the aforesaid proceedings.
9	
5	
10	I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor
11	am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am
12	I financially interested, in the action.
13	
14	DATED this 12 th day of April, 2013.
15	
16	
17	` <u>s/ Veronica Hernandez</u>
18 19	Veronica Hernandez Court Reporter
20	1-800-934-9000
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	20

IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT,

IN	I AND FOR FOSTER CC	OUNTY, SUWANNEE CERTIFIED ORIGINAL	
TASTEA BOTTLING COMPANY,		The	
PLAINTIFF,			
vs.		CASE NO. 11-CA-445	
IKRA YAITSO CURMUDGEON FARI DEFENDANT.	MS, /		
DEPOSITION OF:		GEORGE/GEORGIA FRANKLIN	
TAKEN AT THE INSTANCE:		The Plaintiff, Lee Roberts	
DATE:		April 13, 2013	
TIME:		Commenced at 2:00 p.m. Concluded at 5:00 p.m.	
LOCATION:		301 South Main Street White Springs, Suwannee	
REPORTED BY:		Veronica Hernandez Court Reporter, Notary Public	

100% CORRECT STENOTYPE REPORTERS, INC. **301 SOUTH MAIN STREET** WHITE SPRINGS, SUWANNEE 32301

1	STIPULATIONS
2	The following deposition of George/Georgia Franklin was taken on oral examination, pursuant to notice,
3	for purposes of discovery, and for use as evidence, and for other uses and purposes as may be permitted
4	by the applicable and governing rules. Reading and signing were not waived.
5	* * *
6	Thereupon,
7	GEORGE/GEORGIA FRANKLIN
8	was called as a witness, having been first duly sworn, was examined and testified as follows:
9	DIRECT EXAMINATION
10	BY MS. REHM:
11	Q. Would you tell us your name, please?
12	A. George/Georgia Franklin.
13	Q. Have you ever had your deposition taken before?
14	A. Yes, many times. Southwest Suwannee Water Management District gets sued frequently. Usually in
15	administrative cases, but sometimes in circuit court.
16	Q. You understand you are here today not because the Water Management District is a party to this
17	case—because it isn't—but because you have been listed as a witness for the Defendant?
18	A. Yes, I understand.
19	Q. Let me just remind you, then, of the purposes of a deposition. You are under oath today, just like
20	you will be if we try this case and you are called as a witness.
21	A. Do you think there's a possibility this case will settle?
22	Q. You never know. Again, let me remind you of the purposes for taking a deposition. One is for
23	discovery. I am allowed to ask you a broad range of questions-questions about anything that is
24	relevant to the issues in this case, and questions about anything that may lead to relevant evidence. Mr.

Barnes knows that there is no objection in the state of Suwannee at deposition on the grounds of relevance. So, even if you think I ask you about something you don't think is germane to the issues in this case, you still have to answer. Do you understand?

A. Gosh, we could be here all day.

Q. No, I don't think so, but neither Mr. Barnes or I are scientifically trained, so what you think may be obvious may not seem so simple to us, and we are trying to understand how the parties got to this point, and whether things can be worked out or whether we're going to trial. I know Mr. Barnes must think you can answer some of those questions, and some of them favorably for his client, or he wouldn't have listed you as a possible witness in this case. Anyway, the other purpose for taking depositions is for impeachment.

A. I certainly understand that because, no offense, I know how lawyers try to twist things and make
 perfectly well-meaning and innocent people look like liars in front of a judge or a jury.

37 Q. I'm not one of those people, but if you say something different in court than you say here today it

38 could appear that you lied either at deposition or in court, and the jury members will draw their own

39 conclusions. If I ask you something and you don't understand my question, you should probably ask me

40 to clarify or explain my question before you answer. Fair enough?

41 A. Sure. I don't have anything to hide. I don't have a dog in this hunt, and since you didn't sue the

42 Water Management District, apparently the District doesn't either.

43 Q. Have you been retained as an expert by Curmudgeon Farms?

44 A. Better clarify or explain that one.

Q. Are you being paid for your opinions concerning the issues in this case, or to testify as an expert atcourt?

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- 47 A. I consider myself an expert in my field, but no one has retained me or offered to pay me to come to
- 48 court to testify. In fact, I just hope I get paid leave for all the time I have to put into being involved with
- 49 the parties and this case.
- 50 Q. For the record, where are you employed?
- A. I am employed by the Southwest Suwannee Water Management District.
- 52 Q. How long have you been employed there?
- 53 A. Since 1976.
- 54 Q. What positions have you held during your employment?
- A. I started with the District right out of college, working as a geologist. While continuing to work for
- the District as a geologist, I got my Master's degree at Suwannee State University in hydrogeology. My
- 57 current title is senior hydrogeologist, and I am charge of the hydrogeology division at the District. We
- 58 currently have nine hydrogeologists in my division working under my supervision.
- 59 Q. How long have you held your current position?
- A. I was promoted to that position, which was empty at the time due to a retirement, right after I got
- 61 my Master's degree. I got my Master's degree in 1984.
- 62 Q. Do you hold a doctorate in any field?
- 63 A. No, I knew I would never have the time to write a dissertation; I've been too busy working in the

64 field. Of course I do hold a professional geologist license from the state of Suwannee that I have kept

- 65 current, and I do take refresher courses now and then.
- 66 Q. What do professional geologists do?
- A. I brought something with me today, thinking you might ask that question. Would you like to see it?
- 68 Q. Yes. Madam Court Reporter, would you please attach this as Exhibit "A" to this deposition? What of
- 69 these tasks do you feel you are qualified to perform?
- 70 A. I am qualified by education, training and experience to perform all of those tasks.

71 Q. Is there a continuing education requirement to maintain your license?

A. No, there isn't, I just have to renew the license every two years. We are regulated by the Suwannee
Department of Business and Professional Regulation. However, I do try to keep abreast of
developments in hydrogeology. The Water Management Districts hold annual meetings. The Districts
bring in experts in the field who offer scientific and refresher presentations. All the hydrogeologists in
our office try to keep current in our field.

77 Q What do the division hydrogeologists do?

A. Some deal with issues of water supply in our district. Others are assigned to work with water
resource evaluations. We have one person is responsible for geohydrologic data collection. My position
involves management issues, supervision of the work of the other hydrogeologists, working with issues
of water supply and resource evaluation, and review and approval of water use permits.

82 Q. Did you bring a copy of your CV with you today?

A. Yes, here it is.

84 Q. Is this a current and up to date resume?

85 A. Yes, it is.

Q. Madam Court Reporter, would you please attach this to the deposition as Exhibit "B". I'd like to ask

87 you some general questions about the Water Management Districts. How many are there?

A. There are five water management districts in the State of Suwannee. They are the Northwest
 Suwannee Water Management District, the Suwannee River Water Management District, the St. Johns
 River Water Management District, the South Suwannee Water Management District and of course our
 water management district—the Southwest Suwannee Water Management District.

92 Q. Why five?

A. I should back track a little to explain. The United States historically had two very different methods
for allocation of water. Western states, where water was scarce, did not use the law applied in Eastern

states. Western states generally had and many still have what we now call an appropriative rights rule. 95 96 First in time, first in right. The first user to appropriate water and divert it to use, no matter where the water originated, owned the water right. Under that doctrine, you have definite winners and losers. 97 98 When water is short, appropriators are senior and junior—juniors drop out first and lose everything 99 before the next senior appropriator loses anything. There are problems with appropriative law. There is 100 a real incentive to grab or hoard water resources, and among other things, the use may not be the 101 highest or best use as times change. As an example, persons who appropriated water for agricultural 102 use years ago may have a perverse economic interest in selling those water rights as the area urbanizes. 103 Of course, the Eastern states' water law could be problematic as well. Eastern states used a riparian 104 rights doctrine to decide water rights. It's a lot wetter east of Kansas City and water shortages were generally rare and short lived.¹ Riparian common law gave water rights to persons owning tracts 105 106 abutting a waterway, or persons within the same watershed. All riparian landowners had an equal right 107 of use of the water. Litigation is expensive and can be drawn out, as I am sure you know. The use had 108 to be reasonable, and was correlative to other landowners' rights in use of the water. If one landowner 109 challenged another landowner's use, courts made after the fact decisions about what was reasonable 110 use. Also, what was reasonable under one set of circumstances with one set of landowners may not be 111 reasonable as more persons claim rights to use of the water, for instance, in situations of population growth in the watershed area.² So., Eastern states have been trending towards statutory regulation. In 112 113 1972, after some years of the state encountering water problems-- for example, flooding from tropical 114 storms, terrible periods of drought, mining companies engaging in too much dewatering of the land--115 the Suwannee legislature passed a version of a Model Water Code drafted by some professors at the 116 University of Suwannee. So, back to your question about the water districts?

¹ Joseph Dellapenna, "The Law of Water Allocation in the Southeastern States at the Opening of the Twenty-First Century", 25 U. Ark. Little Rock L. Rev. 9, 9-25 (2002).

² Christine Klein, Mary Jane Angelo, and Richard Hamann, "Modernizing Water law: The Example of Florida, 61 Fla. L. Rev. 403, 406-408 (2009).

Q. Madam Court Reporter, I may have to have you read my last question back to me. I didn't knowhydrogeologists were trained historians.

A. I was required to take courses about the history of water law in our state to get my Masters inhydrogeology.

121 Q. Oh, I remember. I asked you why there were five water districts.

122 A. The districts are regulatory and planning agencies and were set up based on Suwannee watershed 123 boundaries rather than political boundaries. There are five major surface water hydrologic basins in the 124 state, and the districts correspond to those. That way, each district is able to comprehensively address 125 all of the water-related issues within its respective watershed, regardless of political boundaries. 126 Under chapter 373 of the Suwannee Statutes, the water management districts are responsible for 127 addressing issues such as water supply, flood protection, water guality, and protection of natural 128 systems. Our model code emphasizes environmental protection. It authorizes the water management 129 districts to adopt rules—the Suwannee administrative code relating to water resources—which govern 130 consumptive use in the respective jurisdictions to prevent harm to the water resources of the area. Each district has a consumptive use permitting program—the acronym is CUP—which requires permits 131 for most water uses.³ Q. What are the standards for authorizing a permit? 132

A. Chapter 373.223, Suwannee Statutes has a three prong test. The use must be reasonable and beneficial. Reasonable assurances by the applicant that water use meets this three prong test is provided by the applicant's compliance with the conditions for issuance, which are set forth in Rule 40-

- 136 D-2.301 of the Suwannee Administrative Code.
- 137 Q. Reasonable-beneficial sounds vague. What does that mean?
- 138 A. Each water management district sets criteria to determine reasonable-beneficial use, and the criteria
- are set forth in that part of the administrative code that pertains to the particular district as I just said.

³ Christine Klein, Mary Jane Angelo, Richard Hamann, "Modernizing Water Law: The Example of Florida", 61 Fla. L. Rev. 403, 422-423 (2009)

140 Q. Are you telling me that the criteria are different from district to district?

A. Not exactly. The criteria are similar, but may vary some due to differences that exist in the waterbasins that define the districts.

Q. What does reasonable-beneficial use mean when you are talking about agricultural or aquacultureusage?

145 Α. It would be fact specific and would depend on several things. If you look at the Southwest 146 Suwannee Water Management District Water Use Permit Information Manual, Part B, Basis of Review, 147 page B3-7, 3.3 Agriculture, applicants must demonstrate that the quantities applied for relate to 148 reasonable irrigation, livestock, aquaculture, and other agricultural water needs. The applicant will 149 usually provide information to District staff about the types and acreage of crops to be irrigated, the 150 crop growing season, the irrigation systems used, crop establishment, application of chemicals and 151 fertilizers, frost/freeze protection, the type and number of livestock and seasonal herd size fluctuations, 152 and other specific use information. The reasonable demand for agricultural water use is generally 153 composed of one or more demand components, depending on the specific agricultural use. We'd look 154 at how much water is needed other than rainwater. We use information from the University of Suwannee, Institute of Food and Agricultural Sciences Reports, United States Geological Survey 155 156 Benchmark Farms data, and District agricultural irrigation monitoring, among other things. We look to 157 see if applicants are using efficient irrigation systems. We look for applicant use of water conservation 158 methods. Some crops, such as strongberries, need more water than other crops. The four major 159 categories of irrigation-related water use are supplemental irrigation, which is the water delivered to 160 satisfy the evapotranspirational need of the crop or plant; field preparation/crop or plant establishment 161 which is the water delivered for tilling, bedding, fumigation, and planting; other water uses such as heat 162 stress relief, chemical application, irrigation system flushing and maintenance and leaching of salts from 163 the root zone; and, crop protection, for instance, in frost/freeze situations. We look at environmental

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impacts of the requested use. Would the use adversely impact environmental features such as surface water bodies, wetland habitats, on-site environmental features and their relationship to local and regional landscape patterns, habitats for threatened or endangered species, and other environmental features which are dependent upon the water resources of the District. We look at potential environmental impacts by comparing the existing natural system to the predicted post-withdrawal system. Impacts to canals, springs, and estuaries are considered. The legislature has also required each district to set minimum flows and levels for surface waters, and minimum levels for the aquifers.

171 Q. What about must not interfere with a presently existing legal use? What does that mean?

A. New permits are not allowed to the extent they would interfere with presently existing legal uses of water. Existing users have protection for the duration of their permits. Most permits are granted for twenty years, but municipalities may have 50 year permits. Chapter 373 does not provide for priority or preferred uses except where two or more applications which otherwise comply with the Act are pending for a quantity of water that is inadequate. In that situation, the Act directs the districts to approve the application which best serves the public interest and provides that preference is given to a renewal application over a new application.⁴

179 Q. What about the public interest prong?

180 A. What about it?

181 Q. I've read that the districts tend to conflate public interest with the reasonable beneficial tests.

182 A. I don't know what you mean.

Q. I mean that the districts only look at the reasonable beneficial elements—that neither the legislature
 nor the districts have ever defined the meaning of the words public interest. Even more specifically,

that the districts interpret the public interest narrowly, focusing on the interests of individual water

⁴ Ibid page 422-423

users rather than that of the public as a whole. That the districts look at indirect benefits that accrue tothe public as a result of economic benefits enjoyed by individual entities.

A. That sounds more like an accusation than a question. All I can tell you is that I don't set policy. I
apply rules. I don't draft laws for the legislature or rules for the District.

Q. Are you aware of a study author conducted by Gary Lynne, J. S. Shonkwiler, and Michael Wilson? That study indicates there is empirical evidence that the Southwest Suwannee Water Management District, in order to avoid conflict and costs, routinely grants irrigators' requests for more water than

193 they actually need.⁵

194 A. Now you're insulting me.

Q. I'm not trying to do that. I'm trying to get to the bottom of why the District would grant a permit to Curmudgeon Farms that allowed it to withdraw so much water. You had at least three serious frost/freeze events in the district since 1977. A number of sinkholes formed in the district on each occasion. A large number of wells complaints were generated and well repairs cost over a million dollars

199 the last time. How can that be in the public's best interest?

A.Ikra Yaitso's family has lived in this area since the late 1800s. They were riparian owners when we still had riparian law—before the permitting system. They got the first permit the District ever issued and have been renewed ever since. Curmudgeon Farms was an existing legal owner, as defined by our laws before Tastea ever came along. Agriculture is very important in Suwannee. Strongberries are a big agricultural concern, and Yaitso was growing strawberries long before Tastea applied for a consumptive use permit.

206 Q. What about the curmudgeons?

A. Yaitso's permit was renewed a few years ago and the renewed permit allowed additional waterwithdrawals for aquaculture.

⁵ Gary Lynne, J. S. Shonkwiler, and Michael E. Wilson, "Water Permitting Behavior under the 1972 Florida Water Resources Act", 67 Land Econ. 340 (1991)

209 Q. Do you know how much additional water Curmudgeon Farms was allowed to withdraw for

- 210 aquaculture?
- A. I believe it was in the neighborhood of seven million gallons of water a day.
- 212 Q. Was this after Tastea became an existing legal user?
- A. I think so. You know that the District advertises new uses in the paper, right? People who want to
- 214 protest a permit can do that. I don't recall Tastea lodging a protest of any kind.
- 215 Q. How would you know that? I thought your office has lost or misplaced the Curmudgeon permitting
- 216 file.
- 217 A. I know Lee Roberts, and I don't remember Lee filing a protest. But yes, we can't locate our
- 218 permitting file for Curmudgeon Farms.
- 219 Q. Did the modified or renewal permit allow more water withdrawal than the original permit?
- A. Again, I don't have the file, but I am sure it probably did.
- 221 Q. Why don't you have the file?
- A. I don't know. I really don't. We have switched to electronic files, and we are scanning old materials
- now, but we don't have them for Curmudgeon Farms.
- Q. Did the file disappear about the same time one of your hydrogeologists was fired for not actually
- 225 having a geology degree?
- A. Again, I don't know the answer to that. Subpoena him—if you can find him. We can't.
- 227 Q. Maybe I'll do that. What's his name?
- A. Adam Hogginsworth. May I ask you a question?
- Q. Sure. Just remember you can't ask me any at trial. Sometimes the witnesses try to do that.
- A. Why do you think a permit to bottle water is in the public interest?
- 231 Q. Let me answer a question with a question. Does that mean that you don't?

A. Oh, goodness, no. I am actually fond of Tastea products. But I can tell you that there were protestsconcerning allowing a company to bottle spring water.

234 Q. What were the concerns?

235 A. One was sending Suwannee water out of the watershed—out of the state even. Did you know there 236 are issues concerning sending water out of a particular district to another, yet the legislature statutorily 237 exempted bottled water? Another was that Tastea only has to pay a very small permitting fee to take 238 the water. The water is classified as a "food" product, and Tastea pays no taxes for the taking. Our 239 governor wanted to charge a sales tax, but the legislature refused to impose one even though the 240 legislature was having trouble finding revenues for the state budget during the recession. Tastea makes 241 a huge profit on selling state water during a time when we are starting to see water shortages in our 242 district. A lot of people resented that. Lee also closed the spring to public use when he/she started the 243 bottling business. Families in the area had enjoyed swimming in the spring waters for years. Local 244 people didn't like all the water transport trucks on our roads. People were afraid that the Tastea water 245 withdrawals would cause sinkholes to form and wells to dry up. And I guess you are aware that Tastea 246 is bottling the water from the same source that our tap water comes from, the Upper Floridan aquifer. 247 The main difference is City of White Springs adds fluoride to tap water, and that water is chlorinated for 248 disinfection purposes.

249 Q. But the District granted the permit.

A. Yes, just like the District granted the permit to Curmudgeon. The District found the use to be
 reasonable and beneficial. Again, I don't draft statutes or administrative code provisions.

252 Q. I'd like to ask you about the remedial measures the District took after the 2010 frost/freeze event.

253 What did the District do to try to make sure an event of the magnitude of 2010 didn't occur again?

A. You will recall that the Districts are required to establish minimum levels for the aquifer. The District

determined that the NGVD—a datum that was derived by using the average sea level over a period of

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- 256 many years from 26 tidal stations along the Pacific, Atlantic and Gulf of Mexico—must remain above 10
- 257 feet to avoid appreciable well impacts and sinkhole development.
- 258 Q. How many sinkholes did the District document after the 2010 frost/freeze event?
- 259 A. 140 cover collapse sinkholes.
- 260 Q. Where were they located?
- A. 91% of them were recorded for sites within 10 miles of the drawdown center near Suwannee ROMP
- 262 #1.
- 263 Q. What about well complaints during that time period?
- A. There were 760 dry well complaints.
- 265 Q. Were they in the same area as the sinkholes?
- 266 A. Yes.
- 267 Q. Did the District determine how to keep the Floridan aquifer level above 10 feet NGVD?
- A. Yes. We performed a sophisticated numerical groundwater-flow model to simulate the effects of the
- 269 February frost/freeze event. We used the calibrated District-Wide Regulation Model, Version 2, with
- 270 the focus telescopic mesh refinement functionality. The purpose of the modeling effort was to improve
- the existing calibration of DWRM2 for freeze protection simulations, support the establishment of the
- 272 minimum aquifer level, and to assist in quantifying necessary withdrawal reductions to facilitate
- 273 minimum aquifer level recovery for the White Springs area.⁶
- 274 Q. What did the test results indicate needed to be done to establish the minimum level for the Upper
- 275 Floridan aquifer?

⁶ Robert O. Peterson and James O. Rumbaugh, III, "Hydrogeologic Impacts Observed During the January 2010 Freeze Event in Dover/Plant City, Hillsborough County, Florida" Southwest Florida Water Management District Resource Evaluation (2012) http://www.swfwmd.state.fl.us/agriculture/freezemanagement/Dover_Freeze_Report.pdf

A. Existing permitted withdrawals would need to be reduced by 20% to achieve the desired effect
during a frost/free event of the length and magnitude of the February 2010 event.⁷

Q. Didn't those test results make the District aware that Curmudgeon's water drawdowns were neitherreasonable, beneficial, or in the public interest?

A. I have to qualify my answer to that. We had never performed a simulation like the DWRM2 in thepast.

282 Q. Why not?

A. As I said, the District had never experienced a frost/freeze event of this length or magnitude since permitting began. The duration and intensity of the February 2010 freeze event was unprecedented. The February 17-28 freeze is considered to be the most extreme period of consecutive freezes experienced in the White Springs area for the period of recorded freeze events. Also, the type of test the District performed is extremely time consuming and expensive. Even that test has a 10% possible error rate, but it is more accurate than the other common geological tests. And, of course all tests are only as good as the data input.

290 Q. What other types of tests are there?

291 A. One of the most common and simple types is the conceptual model. A conceptual model is a 292 description of an aquifer system which includes inflows, outflows, aquifer storage capacity, aquifer 293 extent, and hydraulic properties. Conceptual models are frequently described with cross-sections or 294 other visual means. Other types may include flow charts or simple written descriptions of the ground 295 water system. They are important tools for understanding ground water systems; however, they are 296 stationary and unable to make predictions of future behavior. Another type is ground water equations 297 or analytical models. Those models rely on mathematical methods to arrive at a solution to a water 298 problem. They are typically applied based on a simplified set of assumptions. To rely on analytical 299 modeling, the assumptions inherent to the ground water equations should be considered to ensure they 300 are suitable for the question at hand and to ensure that applying a simplified representation of the 301 aquifer system will provide an adequate solution. Finally, there are numerical models such as the 302 DWRM2. Those tests simulate aquifer flow by breaking the aquifer into a grid of points or cells. 303 Numerical models rely on mathematical methodologies to simulate flow between the grid cells. They 304 can be operated in transient and steady state modes to predict behavior in ground water systems. 305 Numerical models can be operated in many different modes with various input and output parameters and can be operated to simulate both simplistic and very complex conceptual models.⁸ 306

307 Q. I know the law requires a permittee to perform mitigation for damages attributable to a permittee's

308 water drawdown. Did Curmudgeon Farms make restitution for sinkhole or well complaints?

A. Let me clarify about mitigation. The District only requires mitigation to other existing legal users and only for well damage. The process is initiated by the complainant making a direct application to the permittee. Permittees are only required to reimburse for damages directly attributable to that permittee's drawdown. It is difficult in some cases to determine which permittee caused which specific problem. We do not address sinkholes. Insurance would normally cover those issues.

Q. Do Tastea Bottling Company and Curmudgeon Farms draw water for bottling and water foragricultural use from the same aquifer?

A. Yes, they both draw from the Upper Florida Aquifer, and are drawing water from a common 256square mile area.

318 Q. Wasn't Natural Bridge within one mile of the cone of depression?

319 A. Yes.

Q. Wasn't Curmudgeon Farm the only permittee with withdrawal facilities in or near the cone ofdepression?

⁸ Luke W. Harris, P.E. & Christopher J. Sanchez P.G., *Considerations for Analyzing Colorado Ground Water: A Technical Perspective*, 15 U. Den. Water L. Rev. 105, 126-128 (2011).

322 A. Yes, other than the Tastea bottling company.

323 Q. The bridge collapse was caused by a sinkhole forming or enlarging under the bridge immediately

324 after the drawdown, and therefore the bridge collapse was caused by Curmudgeon Farms, wasn't it?

325 **Mr. BARNES:** Objection to the form of the question; leading and compound.

326 **BY MS. REHM:** I thought you were asleep, Tor. I'll rephrase.

327 Q. In your opinion, what caused the collapse of Natural Bridge?

328 A. You want my honest opinion?

329 Q. You are under oath.

330 A. Several things probably contributed to the collapse. As far as I know, no one ever ran any tests to 331 determine whether there was a sinkhole under the bridge or just significant fractures, joints, pipeholes, etc, or whether there were two sinkholes down there. We were pretty sure there was a sinkhole, 332 333 because the St. Luke River disappeared under the bridge and reappeared as springs—the St. Luke's River 334 Rise—a short distance downstream. We knew Natural Bridge was actually a cavern roof. We knew the 335 cavern roof was composed of limestone. Natural bridges can form from natural limestone caves, where 336 paired sinkholes collapse and a ridge of stone is left standing in between, with the cave passageway 337 connecting from sinkhole to sinkhole. Like all rock formations, natural bridges are subject to continued 338 erosion, and will eventually collapse and disappear. http://en.wikipedia.org/wiki/Natural arch Natural 339 Bridge was formed by dissolution of weaker limestone, leaving more resistant portions of the rock in 340 place. A well-known Florida geologist had stated in the literature that the bridge could eventually 341 collapse if erosion-- for instance erosion from scouring by the St. Luke river-- and acidic solution activity persisted.⁹ Also, those reenactors were shooting off cannons very close to the bridge shortly before it 342 343 collapsed. All that noise and vibration may have helped set the collapse in motion. We've had a serious 344 drought in 2006-2007, and serious flooding in 2008 from Tropical Storm Fay. These events could have

⁹ Ed Lane, "Karst in Florida", Florida Geological Society Special Publication #29, <u>http://ufdc.ufl.edu/UF00000144/00001/print?options=1JJ1-109</u> at pages 32-35 (1986).

stressed the bridge by either taking away buoyancy and underlying water support during the drought, or adding excess weight over the bridge during times of flooding. There are other instances of natural bridges collapsing overnight as it were. For instance, there was a popular tourist attraction in Aruba, a land bridge that washed away within a day in 2005. Pounding waves and cracks in the limestone brought it down. Another tourist attraction, Wall Arch at Arches National Park in Utah, fell in the course of a night in 2008. <u>http://www.nps.gov/arch/parknews.news.08/08/08.htm</u> Gravity alone takes a toll.

352 Q. What about the spring?

A. The spring is within a half mile of the cone of depression. I understand it is flowing again, so I am not

354 sure exactly what your question is.

- 355 Q. Didn't it stop flowing shortly after the end of the frost/freeze drawdown?
- 356 A. There is no question about that.
- 357 Q. Isn't that caused by the aquifer level dropping?

A. Yes. Less water in the aquifer, less pressure in the aquifer to force the water upwards and out of the

- 359 ground. My understanding is the spring is flowing again.
- 360 Q. Is it true that the District has concluded that water levels can be affected by freeze protection
- 361 withdrawals over a wide area and that the distribution and intensity of impact appears to be growing
- 362 over time in the White Springs area?¹⁰
- 363 A. Yes.
- 364 Q. Did the District also conclude in that same study that a continued long-term decline in the
- 365 potentiometric surface in and surrounding the White Springs area can diminish any positive effects
- 366 resulting from efforts to reduce freeze protection drawdown impacts?

¹⁰ Robert O. Peterson and James O. Rumbaugh, III, "Hydrogeologic Impacts Observed During the January 2010 Freeze Event in Dover/Plant City, Hillsborough County, Florida" Southwest Florida Water Management District Resource Evaluation (2012).

367 A. Yes.

Q. Was a another conclusion that significant increases in permitted groundwater withdrawal quantities within and immediately surrounding the 256 square mile that encompasses the Plaintiff's and Defendant's land may contribute further to long-term water level decline and certainly to short-term freeze protection aquifer water-level decline?

372 A. Yes.

- Q. Is it also true that the District has concluded that if the Upper Florida aquifer potentiometric surface
 continues to decline, water levels leading into Curmudgeon Farms' normal crop establishment and
- 375 freeze protection water-use periods will inevitably be lower, allowing for shorter length freeze events to
- 376 potentially cause appreciable negative effects?
- 377 A. Yes.
- 378 **MS. REHM:** I have no further questions. Thank you for your time.
- 379 MR. BARNES: No questions.
- 380 (Deposition concluded at 5:00 p.m.)
- 381
- 382
- 383

<u>G Franklin</u>

George/Georgia Franklin

EXHIBIT A

TRADITIONAL TASKS PERFROMED BY SUWANNEE PROFESSIONAL GEOLOGISTS Or Professional Engineers <u>Qualified in Geology</u>

(Complied by the Suwanee Board of Professional Geologists)

The Suwannee Board of Professional Geologists has received numerous requests from various professionals, agency representatives, and the public for clarification regarding what constitutes "professional geological services" in Suwannee. Related to this request, is the desire for the Department of Business and Professional Regulation to be able to more easily identify what would be considered "unlicensed activity" or "bad professional practice" in the realm of professional geologic services. The Board in cooperation with many participants at their public meetings and the Suwannee Association of Professional Geologists has put together a listing of "traditional tasks" which would typically be performed by a Licensed Professional Geologist. In some circumstances a Licensed Professional Engineer who is qualified in geology (as defined by Chapter 492 Suwannee Statutes) could also carry out said activity in the appropriate sub discipline of the geosciences. The following topical listing gives a good summary of the typical activities and services professional geologists are involved in throughout the State of Suwannee. Professional Geologist activities in other states would include additional and different services specific to the terrain and geologic structure appropriate for their respective state.

I. Background Research

- A. Location and evaluation of geological and hydrogeological data and literature sources related to a site or area.
- B. Analysis of the quality of geological and hydrogeological data obtained for a site or area.
- C. Evaluation of geological and hydrogeological data.

II. Field Geology/Site Assessment

- A. Examination of outcrops to assess the geology of a site or area, including:
 - 1. Determination of site stratigraphy.
 - 2. Determination of rock types.
 - 3. Determination of sediment types.
 - 4. Determination if the sediments have been disturbed.
 - 5. Determination of the presence of fill materials.
 - 6. Determination of the presence of hazardous conditions, including the presence of waste materials, unstable rock or sediment, areas subject to erosions, and hydrogeologically sensitive areas.
- B. Interpretation and evaluation of geological / hydrogeologic maps.
 - 1. Determination of the presence of geologic formation or structures, such as:
 - a. Faults
 - b. Sinkholes
 - c. Lithostratigraphic, time stratigraphic, and hydrostratigraphic units

- d. Economic mineral deposits
- 2. Determination of the presence of aquifer units.
- 3. Assessment of surface hydrology, such as:
 - a. Flood-prone areas
 - b. Drainage patterns
 - c. Erosion and deposition areas,
 - d. Aquifer recharge areas.
- C. Interpretation and evaluation of topographic maps, aerial photographs and satellite images such as:
 - 1. Identification of cultural features.
 - 2. Identification of photoliner features (fracture traces, joints, faults).
 - 3. Identification of geological structures.
 - 4. Identification of geomorphic features
- D. Review and evaluation of maps including hydrologic maps such as:
 - 1. Determination of whether a location is within a flood plain.
 - 2. Determination of highest flood level and ordinary high water line.
- E. Conduct drilling operations
 - 1. Plan drilling operations
 - a. Determine types of wells-monitor, exploration, production layout and spacing of wells and if cores or cuttings are to be taken.
 - 2. Determine if cores and cutting are to be archived with the Suwannee Geological Survey.
- F. Examine rock or sediment borings, logs, and tests to assess the geology of a site or area, such as:
 - 1. Determination of lithostratigraphy.
 - 2. Determination of sediment types.
 - 3. Determination if the sediments have been disturbed.
 - 4. Determination of the presence of fill materials.
 - 5.Determination of indicators of the presence of hazardous conditions, such as waste materials, sinkhole activity, abnormal fluid pressures, adverse water quality conditions.
 - 6. Determination of the presence and value of mineral resources.
 - 7. Determination of the presence (or absence) and condition of groundwater in aquifer systems.
- G. Interpretation of coastal erosional and depositional patterns

III. Geophysics

- A. Use of wireline geophysical instruments to evaluate hydrostratigraphic and lithostratigraphic horizons (aquifers and confining units, formations).
- B. Litho and hydrostratigraphic interpretation of wireline logs.
- C. Evaluation of the characteristics of sediment and fluid within sediment using electric logs

- D. Establishment of the presence of subsurface cavities using geophysical techniques such as gravity, electrical resistivity, terrain conductivity, ground-penetrating radar, wireline logs (sonic or caliper logs).
- E. Conducting and interpreting surface resistivity testing.
- F. Interpretation of reflection and refracting seismic data and ground-penetrating radar.
- G. Interpretation of EM data
- H. Interpretation of video logs down wells to assess porosity, well construction/condition

IV. Petrology and Mineralogy

- A. Identification of minerals and rocks.
- B. Determination of the composition, crystallography, texture, and fabric of minerals and rocks.
- C. Determination of the uses and characteristics of minerals and rocks.

V. Lithostratigraphy and Hydrostratigraphy

- A. Identification of rock formation and hydrostratigraphic horizons.
- B. Identification of fossils.
- C. Identification of stratigraphic boundaries.
- D. Correlation of stratigraphic units utilizing wireline logs, wells, cores, and/or outcrops.
- E. Preparation of lithostratigraphic and hydrostratigraphic interpretations.

VI. Sedimentology

- A. Rock and sediment description, assessment and/or evaluation, including porosity, permeability, sedimentary structures, matrix or cement, depositional environment, texture, diagenetic changes and mineralogy of sediment or rock.
- B. Determination of the extent of rock or sediment bodies.
- C. Determination of the homogeneity of sedimentary bodies.

VII. Geochemistry

- A. Assessment of the quality of water
 - 1. Determination of hydrochimical facies.
 - 2. Formulation of quality assurance plans for water quality sampling and analysis.
 - 3. Formulation of sampling plans for ground and surface-water quality determination.
 - 4. Determination of sorption/desorption reactions based upon aquifer mineralogy.
- B. Determination of fate of chemicals in water
 - 1. Definition of ground- and surface-water flow systems.
 - 2. Assessments of the dispersion and sorptive properties of an aquifer system.
 - 3. Assessments of the behavior of volatile organics and two-phase flow in ground and surface water.
 - 4. Development of site remediation programs.
 - 5. Conduct risk assessment and risk audits.

6. Assessment of saltwater encroachment.

- C. Determination of geochemistry of sediments, rocks and minerals.
 - 1. Mineralogical analyses.
 - 2. Elemental analyses.

VIII. Economic Geology

- A. Assessment of the quantity, quality, and development potential of a mineral or water resource (resource and reserve assessments for both energy and non-energy minerals). Included assessment of overburden and economic viability of development which may include assessment of land-use regulations, market, transportation, beneficiation costs, etc.
- B. Determination of the water-supply properties of an aquifer.
- C. Determination of ground-water supply properties of an aquifer.
- D. Assessment of structural and other complications of resources accessibility.
- E. Assessment of changes in ground-water flow systems upon withdrawal of waters, including changes in potentials, storage flow directions, and position of freshwater / saltwater transition zones.
- F. Evaluation of the environmental impact or resource exploitation.
- G. Preparation of ground-water contamination assessments.
- H. Assessment of risks associated with disposal of wastes in natural systems.

IX. Groundwater modeling

- A. Determine aquifer parameters
- B. Conduct aquifer performance tests, well specific capacity tests.
- C. Develop conceptual model or ground-water flow.
- D. Develop water balance for hydrologic system.
- E. Develop/use ground-water models for use in water supply.
- F. Develop/use analytical, particle tracking or mass transport models or delineation of well source-water areas or contaminant transport.

X. Data Synthesis and Map Preparation

- A. Preparation and interpretation of cross-sections, geologic / hydrogeologic maps, subsurface contour maps (isopach, facies, and structure), final reports and mineral and water resource maps.
- B. Preparation and interpretation of geological reports and maps, such as for:
 - 1. Waste disposal suitability.
 - 2. Land planning or zoning purposes.
 - 3.Springshed delineation.
 - 4. Geologic hazards including sinkholes and swelling clay

EXHIBIT B

CURRICULUM VITAE

George/Georgia Franklin

EDUCATION:

COLLINS UNIVERSITY	Received B.A. degree in Geology, 1976
SUWANNEE STATE UNIVERSITY	Received M.A. degree in Geology, 1984
WORK EXPERIENCE:	
Fall, 1976-1984	
Geologist	Southwest Suwannee Water Management District
Fall, 1984 to present	
Senior Hydrogeologist	Southwest Suwannee Water Management District

GRADUATE AWARDS AND FELLOWSHIPS:

"Geology Matters" Foundation graduate study fellowship, August, 1982-August, 1984;Research Geological, research grants, 1982, 1983; Research grant.

PROFESSIONAL SOCIETIES:

Rhi Teta Lappa, Paleontological Association

PROFESSIONAL LICENSE:

Geologist P.G. 1988 Initial Date: 03/26/1987 Expiration Date: 01/03/2016

PUBLICATIONS:

Thomas, P. and Franklin, G., 1989 Hydrogeology and Water Management, Water Management Journal, 2: 191-201.

Rider, .J, and Franklin, G., 1992. State Planning & Hydrogeology. Suwannee Geology Journal, 15: 38-42.

Smith, W., Franklin, G., and Fields, G., 1995. Hydrogeology: Water Waste and Land Use. Marine Micropaleontology, 26: 319-327.

1	CERTIFICATE OF OATH
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	
6	I, the undersigned authority, certify that said designated witness personally appeared before me
7	and was duly sworn.
8	
9	WITNESS my hand and official seal this 13 th day of April, 2013
10	
11	`s/ Veronica Hernandez
12	Veronica Hernandez
13 14	Court Reporter 1-800-934-9000
15	(850) 878-3333
	24

1	CERTIFICATE OF REPORTER
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	I, VERONICA HERNANDEZ, Court Reporter, certify that the foregoing proceedings were taken
6	before me at the time and place therein designated; that my shorthand notes were thereafter
7	translated under my supervision; and the foregoing pages number 1 though 23 are a true and correct
8	record of the aforesaid proceedings.
9	
,	
10	I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor
11	am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am
12	I financially interested, in the action.
13	
14	DATED this 13 th day of April, 2013.
15	
16	
17	S/ Veronica Hernandez
18 19	Veronica Hernandez Court Reporter
20 21	1-800-934-9000 (850) 878-3333
21	(00) 010 000
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IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT, IN AND FOR FOSTER COUNTY, SUWANNEE CERTIFIE RIGIN TASTEA BOTTLING COMPANY, PLAINTIFF, vs. CASE NO. 11-CA- 445 IKRA YAITSO CURMUDGEON FARMS, DEFENDANT. **DEPOSITION OF:** LEE ROBERTS TAKEN AT THE INSTANCE: The Defendant/Ikra Yaitso Curmudgeon Farms DATE: April 13, 2013 TIME: Commenced at 9:00 a.m. Concluded at 12:00 p.m. LOCATION: 301 South Main Street White Springs, Suwannee **REPORTED BY:** Veronica Hernandez Court Reporter, Notary Public 100% CORRECT STENOTYPE REPORTERS, INC. **301 SOUTH MAIN STREET** WHITE SPRINGS, SUWANNEE 32301

1	STIPULATIONS
2	The following deposition of Lee E. Roberts was taken on oral examination, pursuant to
3	notice, for purposes of discovery, and for use as evidence, and for other uses and purposes as may be
4	permitted by the applicable and governing rules. Reading and signing were not waived.
5	* * *
6	Thereupon,
7	LEE E. ROBERTS
8	was called as a witness, having been first duly sworn, was examined and testified as follows:
9	BY MR. BARNES:
10	Q. Tell us your name, please.
11	A. My name is Lee Roberts.
12	Q. Have you ever had your deposition taken before?
13	A. No, I haven't.
14	Q. Let me explain the uses and purposes of a deposition, and how the questioning works. A deposition
15	has several purposes. One is to discover any evidence relevant to the issues in this case, and any
16	evidence that might lead to relevant evidence. The other is for impeachment. You are under oath
17	today, you will be under oath in the courtroom. If you testify differently in court than you do here
18	today, I could use the statements to show that you lied here or at court. There are no objections except
19	for those as to the form of the question, and those that relate to privilege. Even if Ms. Rehm objects to
20	one of my questions, you must answer it unless she tells you not to because she believes it relates to a
21	privileged matter. Of course if she thinks I am harassing or badgering you she could possibly terminate
22	the deposition and ask for a ruling from the judge, but there are consequences attached to that for
23	whoever is on the losing end of the argument, so I don't think that is going to happen.
24	A. You might as well call me George. I cannot tell a lie.

25 Q. Well, that story about cutting down the cherry tree was a pack of lies, and a pastor wrote it. You 26 would be surprised how many times I've gone to court and heard people change their stories. People 27 try to explain it away by telling the judge 'but Mr. Barnes didn't ask me that question'. People or their 28 lawyers also seem to think my deposition questions aren't relevant and therefore they don't need to be 29 answered. I like to explain the rules of the game upfront. Which brings me to another point. If I ask you 30 a question, you answer it, then I ask you several times, is there anything else, it's not because I'm trying 31 to badger you. It's what I call explore and exhaust. Again, I don't want you to go to trial, give some new 32 and exciting version of events, and then when I complain about it, you tell the judge I didn't ask you 33 about it at deposition. And if my questions are confusing—sometimes I even confuse myself—ask me to 34 explain or clarify before you answer. So, are we agreed that these are the rules we operate under?

35 A. Yes.

36 Q. Where do you reside at present?

A. 1234 Natural Bridge Road, White Springs, Suwannee 32305.

38 Q. Where is the Tastea property located in relation to the Curmudgeon property?

39 A. We are adjoining landowners.

40 Q. How much acreage do you have at that address?

41 A. I have a small plantation—3,000 acres. Tastea Bottling Company, Inc. actually holds the title, but I

42 am the sole shareholder. Tastea Bottling Company is sited on that land.

43 Q. Are you employed?

44 A. I am self-employed. Tastea owns the land where the Battle of Natural Bridge was fought. That land

45 has been in my family for generations, and several of my ancestors fought for the Glorious Cause, and at

- 46 the Battle of Natural Bridge. I have improved and restored the battlegrounds. I hosted a yearly re-
- 47 enactment until the events of March 6, 2010. I charged the public admission fees, and re-enactors for

48 the use of my property. I also am the chief executive officer and sole owner of the Tastea Bottling

49 Company.

- 50 Q. What does the Tastea Bottling Company produce?
- 51 A. We have two products. Mostly we produce bottled spring water which I market under the trademark
- 52 name Eternal Spring. The other product is bottled tea which is made using water from the same source.
- 53 My most popular tea is Dixtea. I also sell Yanktea.
- 54 Q. What is the difference between Dixtea and Yanktea?
- 55 A. Yanktea is unsweetened tea that is primarily distributed and sold north of the Mason Dixon line.
- 56 Dixtea is sweetened, and is very popular south of the line. We sell a lot of it right here in White Springs.
- 57 In fact, I see that the court reporter offered you one of my products. You're drinking a Dixtea.
- 58 Q. Very tasty. How much sugar is in it?
- 59 A. Twelve teaspoons per 12 ounce bottle. We also have a super-size sweet tea.
- 60 Q. No Mayor Bloomberg in White Springs?
- A. Our mayor was elected by the Tea Party.
- 62 Q. How long have you owned the bottling company?
- A. I started that company. Tastea began production in 2009.
- 64 Q. Where do you get your water?
- 65 A. Three wells drilled into the Upper Floridan Aquifer.
- 66 Q. How much water are you allowed to withdraw on a daily basis?
- A. The Southwest Suwannee Water Management District gave me a permit to withdraw a maximum of
- 68 100,000 gallons a day or three million, one hundred thousand gallons a month.
- 69 Q. What do you pay for the water?
- A. Water is free, Mr. Barnes. Water belongs to the people.
- 71 Q. But Tastea is a corporation, isn't it?

- 72 A. Corporations are people, my friend.
- 73 Q. Are you telling me you pay nothing at all?
- A. Tastea paid the Southwest Suwannee Water Management District \$230 for a permit to withdraw the

75 water.

- 76 Q. Didn't the public use the spring for swimming and recreation purposes for years before you began
- 77 your bottled water operation?
- A. Yes, but I had to stop that use.
- 79 Q. Why?
- 80 A. I was concerned about liability issues. So I put a fence around the spring and a locked gate at the
- 81 road entrance there.
- 82 Q. When did you put up the fence and locked gate?
- A. 2009, right before I opened the Tastea plant.
- Q. Where did you get the idea to make an economic enterprise out of bottling water from the spring on
- 85 your land?
- A. It's a very profitable business. The profit margin is better than 30%.
- Q. Doesn't the cost of bottled water range from 240 times to 10,000 times the cost of tap water?¹
- A. Yes, but a lot of people prefer bottled water over tap water. It's convenient, a lot of people prefer
- 89 the taste, and it's safe to drink.
- 90 Q. Let's talk about that. Let's start with the safety issue. Didn't an EPA study find that 94% of public
- 91 water systems in the U.S. reported no violations of a health based drinking water standard?²
- 92 A. Yes, I saw that study.

¹ Christine A. Klein and Ling-Yee Huang, "Cultural Norms As A Source of Law: The Example of Bottled Water", 30 Cardozo L. Rev. 507, 520 (2008).

² id at 515

93 Q. Didn't an independently-contracted test of 1,000 bottles of water representing 103 different brands

94 of bottled water find that about one third of the samples exceeded at least one chemical or bacterial

95 contaminant level set by industry standards?

96 A. That test was done around 1999, and look who's still putting it out there for public consumption--

97 the National Resources Defense Council. Those people hate the bottled water industry. They just have
98 an ax to grind if you ask me.³

99 Q. About your claim that bottled water is convenient. Isn't there a high price for that convenience?

100 A. What do you mean?

101 Q. Don't consumers of bottled water and other bottled beverages discard abut eighty-six percent of

102 empty plastic bottles, sending two million tons of plastic bottles to landfills each year?⁴

A. I can't argue with that, but where would we be without bottled water, and how is that the fault ofthe bottled water industry?

105 Q. What do you mean, where would we be?

A. Think about the purpose bottled water serves when the public supply dries up, disappears, or becomes unsafe to use. Think about chemical spills, hurricanes and other natural disasters that effect the public water supply. The bottled water companies have always made donations or otherwise come to the rescue during those times. Tastea will donate water in those situations. Right now we donate water to Habitat for Humanity workers to drink whenever they build a house in our area. They get thirsty working out there in the hot sun.

112 Q. Do you claim Curmudgeon Farms caused any damage to your business?

113 A. We wouldn't be here today if it hadn't.

114 Q. How did Curmudgeon Farms damage your business?

³ Id, at 515

⁴ Id, at 522

115 A. Yaitso caused my spring to dry up for several weeks. As a result, we had a huge profit loss because

116 we couldn't fill our orders for our bottled products. Yaitso caused incalculable damage with the Natural

117 Bridge collapse. Yaitso destroyed part of Suwannee's glorious heritage, and that can't be replaced.

118 Yaitso's allowed some of those damned, dangerous curmudgeons to get loose in the St. Luke's River.

119 Q. What about the curmudgeons?

120 A. They're invaders. They aren't natural to this area. They're from Russia. Meaner than snakes and

121 twice as ugly. They can leap out of the water and knock you to kingdom come. The state's had to post

signs along the navigable part of the river to warn boaters.

123 Q. I want to ask you about that part of the river. Where is your property in relation to the St. Luke's

124 River?

- 125 A. The St. Luke's River flows through my property.
- 126 Q. Do you claim any property rights in the river?
- 127 A. Yes.

128 Q. I thought the state owned or controlled all rights in navigable waterways.

A. You're right. But my family owned the property in the Natural Bridge area by virtue of a Spanish land

130 grant, and the water rights at that part of the St. Luke's River was conveyed by that land grant.

131 Q. Was the St. Luke's River navigable at Natural Bridge?

A. The St. Luke's River wasn't and still isn't navigable at or around the Natural Bridge area. It only becomes navigable south of the St. Luke's River Rise, about half a mile away from where Natural Bridge used to exist. The United States and the state of Suwannee acknowledged my rights in the waterway north of the River Rise because of my grant specifically conveyed those rights. And I'd just like someone to try and navigate their way over that monstrous sinkhole. Besides, the issue in this case is not the river, at least not at this time. The problem is the loss of my land bridge and the spring flow at Manassas Spring. 139 Q. Okay. I want to ask you about an incident that happened in early April 2010. Are you aware Yaitso

- saw some people wearing white sheets and hoods in front of the Yaitso residence? They had burning
- 141 torches and they dumped a package in the yard.

142 A. What was in the package?

- 143 Q. A smoked curmudgeon, with a note stuffed in its mouth. A message was written in block letters.
- 144 The letters looked like they were cut from magazines and newspapers.
- 145 A. What did the note say?

146 Q. Yaitso would sleep with the fishes.

- 147 A. It could have been anybody. Foreigners aren't real popular around here. Yaitso should have realized
- 148 that before the permit request was made. Numerous businesses and people protested to Southwest
- 149 Suwannee Water Management District about giving Yaitso a permit to pump that amount of water.
- 150 Q. Hasn't the Yaitso family lived on the Curmudgeon Farms property since the late 1870s?
- 151 A. Yeah. They're a bunch of carpetbaggers alright.
- 152 Q. Let's move on. Tell me how Yaitso caused your spring to dry up and Natural Bridge to collapse.
- 153 A. Aren't you deposing my expert, Dr. Billie Cash? All I know is what Dr. Cash told me. Whatever I say
- 154 would be what you call hearsay, wouldn't it? I'm no expert, but all of this did happen right after
- 155 Curmudgeon Farms withdrew all that water during the frost/freeze in February, 2010.
- 156 Q. You're right, I should ask Dr. Cash those questions. I'll ask you something you may be able to answer.
- 157 Assuming for argument that Yaitso caused the Natural Bridge collapse, couldn't you build a bridge over
- 158 the river?
- 159 A. Reconstruction? A man-made bridge?
- 160 Q. Have you checked to see if it's feasible?
- 161 A. Yes, to the tune of half a million dollars.
- 162 Q. Why so much?

163 A. Engineers tell me it would require a forty foot long bridge--a thirty five feet (35') clear single span. It 164 would have to be forty three feet (43') wide to accommodate two 12 foot lanes and two eight foot 165 shoulders. The bridge would require forty four feet wide (44') precast abutments and twenty three feet 166 long (33') precast wingwalls with embedded steel plates which would be erected with a crane, and 167 welded to the steel piles and to each other prior to placing flowable fill behind the abutments. Then, 168 eight thirty eight foot four inch long (38'-4''), five foot four inch wide (5'-4'') and one foot six inch (1'-6'')169 deep precast superstructure units have to be erected, including the edge units complete with precast 170 railing. The units have to be transversely post-tensioned and grouted. And in no way would this be a 171 natural bridge. No man made bridge can compensate for the loss of Natural Bridge. It had significant 172 historical value.

173 Q. What's the historical value?

A. You'd know if history books weren't written by the winners. Our capitol, White Springs, was the only Confederate capitol east of the Mississippi that didn't fall to Union forces, and that was because the Rebs defeated the Union army at the Battle of Natural Bridge. The Yanks outnumbered the Rebel forces, but the Yankees were repulsed at Natural Bridge by Confederate troops comprised of old men and teenagers. The young boys were military cadets from West Suwannee Seminary, which later became the Suwannee State College for Women, and near the end of World War II became a co-ed college now known as Suwannee State University.

- 181 Q. What does this have to do with the bridge?
- 182 A. I'm trying to explain the historical value of the bridge. May I continue?

183 Q. Please do.

184 A. The Yankees planned to march on the Suwannee state capitol, which was, and still is, White Springs.

185 They planned to invade from the south, and came up the Gulf of Mexico. They ran their boats aground

186 at the St. Luke's River. Rebel forces burned the closest bridge near that part of the river where the

- 187 boats ran aground. The Yanks marched up river to the only other place to cross—Natural Bridge. The
- 188 Yanks charged that bridge three times, and were beaten back every time. The scurvy Yankee dogs that
- 189 weren't captured or shot dead slunk back the way they came and sailed south.
- 190 Q. Do you have any way of calculating the diminution in your property's fair market value due to the
- 191 collapse of the bridge?
- A. Yaitso's cut my battleground in half. The tourist and historical value is destroyed, and no, I can't
- 193 place a value on it. In fact, I've placed that part of my property for sale, but haven't gotten any takers.
- 194 Q. Let's talk about the day of the re-enactment when the bridge collapsed.
- 195 A. The day history was re-written. Where do I begin?
- 196 Q. How about at the beginning. Go into as much detail as you can.

A. March 6th, 1865 was the actual day of the battle of Natural Bridge. The 2010 re-enactment also 197 happened to fall on March 6^{th,} a Saturday. The re-enactments are weekend events that last until late 198 199 Sunday afternoon. The morning started off well. The re-enactors were on time. On the Union side, we had the 2nd U.S. Colored Infantry and the 99th Colored infantry. Most of the Union troops who fought at 200 201 the Battle of Natural Bridge were African American though the officers were white, and most of the 202 battle casualties came from Union troops. There were 21 killed, 89 wounded, 38 captured, and some 203 missing Union soldiers. There were only three killed and 23 wounded on the Confederate side. For 204 many years all of the re-enactors were white, but we had a few African American re-enactors that year, 205 with the promise of more the next year. But next year didn't happen, nor the next two, for reasons of 206 which you are well aware.

207 Q. What do you mean?

A. We couldn't have an accurate re-enactment without the bridge. The battle was all about the bridge.
It was the only way that Union troops could cross the St. Luke's River to march on White Springs, the
state capitol.

211 Q. Please continue with your description of March 6th, 2010.

A. I was telling you about the troops, I believe. On the Confederate side, there was the Kilcrease Artillery; Dunham's Battery; Abell's Battery; 5th Suwannee Cavalry; 1st Suwannee Militia; Barwick's Company Reserves; Hodges Company Reserves; Company A; Milton Light Artillery; Companies A, B, and F, Reserves; and, reinforcements from Georgia. March 6th, 2010 was bright and sunny, and we were selling a lot of bottled spring water and tea. But March 6th, 2010, the casualties were all Confederate.

218 Q. No one died.

- A. Do you call Traveler a nobody?
- 220 Q. Who is Traveler?
- A. My horse.
- 222 Q. I'm sorry. There were no human deaths, were there?
- A. Fortunately, by the grace of God, no.
- 224 Q. Were you on the bridge when it collapsed?

A. Yes. I was playing the part of Confederate Captain Simmons. He took a party of men over the bridge when the Union forces were in full retreat. I was supposed to make it across the bridge to the second line of defense and become mortally wounded. We had almost made it all the way across the bridge when most of the bridge collapsed. I was tossed off Traveler when he lost his footing as the bridge caved in. Spectators rushed to help. Lots of scared soldiers were hauled out of the water. We lost guns, equipment and face.

- 231 Q. How did Traveler die?
- A. He drowned. He was carrying a lot of weight, and he got caught in something in the water, probably
- his reins or some of the floating debris. There were lots of fallen trees in the water. Traveler was pulled

- down into the sinkhole before we could haul him out. He floated up a week later with his reins
- 235 wrapped around his legs. Horrible. I have pictures. Would you like to see them?
- 236 Q. It was a week before your horse was removed from the water?
- 237 A. Yes.
- 238 Q. I'll take a rain check. Was there any warning before the bridge collapsed?
- A. No. It was there one minute, and gone the next. You couldn't see anything but dark, swirling water
- and swimming soldiers, and you couldn't hear anything but people screaming and crying. It's extremely
- 241 lucky--a miracle—that we didn't all get sucked into that sinkhole and suffer poor Traveler's fate.
- 242 Q. What about before March 6th? Did you see any signs of any kind that the bridge was about to
- collapse?
- A. None whatsoever.
- 245 Q. No cracks, fractures, sagging fences, developing depressions or ponding?
- A. Not a thing.
- 247 Q. Madam Court Reporter, I'd like you to mark this as Exhibit "A". Mr. Roberts, I'm showing you what I
- just had the court reporter mark as Exhibit "A". Do you know what this is?
- A. Looks like a picture of a road with some holes in it.
- 250 Q. Isn't this a picture of the road that ran over the land bridge before it collapsed?
- A. That looks like it could be any state road.
- 252 Q. Did you make repairs to some holes in the road shortly before it collapsed?
- A. No. Who told you that?
- Q. Ikra Yaitso said he took that picture about a week before the land bridge collapsed, and that it is a
- 255 picture of the road over Natural Bridge.
- A. He's a liar.
- 257 Q. Weren't you firing cannons near the bridge on March 6th, 2010?
 - 12

258 A. Yes.

259 Q. How many?

A. We had seven cannons. They weren't all firing at the same time. All of our men were on the west side of the river except for those on the bridge itself. Our lines were formed in a slightly curved arc of a circle. The center of the line was about 17 yards from the pass. The ground was open for 150 yards towards the river. Colonel Girardeau's militia had one piece of artillery. Houston's troops had two pieces of artillery placed at the center to enfilade the enemy's approach. Captain Denham had three cannons. Two of his pieces were placed on the left line, and one on the right. Whitehead had one cannon to the right of the line.

267 Q. Was there continuous firing?

A. Until our ammunition ran out. We had quite a bit. Most folks say their favorite part of the show is

the cannons what with the loud noises and all the smoke. Especially the rug rats, at least the ones that

aren't crying or dumbstruck from sheer terror.

271 Q. How close were the cannons to the bridge?

A. About 75 yards away.

273 Q. You did know the St. Luke's River drops into a sinkhole near the bridge?

A. Well, everyone, including me, thought that it did. The river dropped under Natural Bridge and came

back above ground at the St. Luke's River Rise. Now there's just one really gigantic sinkhole and no

276 Natural Bridge.

277 Q. Was Tastea doing any drilling in that area before the collapse?

A. We hadn't drilled any wells since the initial three, and that was in 2009. The three wells were more

than adequate to collect a maximum of 100,000 gallons a day from the aquifer. You should ask Yaitso

about the 750 water wells he has.

281 Q. Let's talk about your insurance coverage.

- A. What insurance coverage?
- 283 Q. Who's your carrier?
- A. Suwannee State Farm.
- 285 Q. Did you submit a claim?
- A. Of course. It was denied.
- 287 Q. On what basis?

A. They took the cheap way out, and bought George/Georgia Franklin's opinion that the bridge collapsed from earth movement due to natural causes. I had an all risk policy. Suwannee State Farm claimed the policy unambiguously excluded damage caused by quote unquote natural phenomena. I read the policy, and there was an exclusion clause titled "earth movement". Earth movement was defined as earthquakes, land shock waves or tremors before, during or after a volcanic eruption, landslides, mine subsidence, mudflows, or earth sinking, rising, or shifting.

294 Q. You didn't have sinkhole specific insurance?

295 A. As you probably know, there has been a rash of sinkhole claims in Suwanee in recent years. The 296 insurance lobby has a lot of influence, and the Suwannee State legislature passed a bill defining sinkhole 297 insurance coverage to mean coverage of any structure, and personal property in that structure. There 298 are percentages of loss deductibles. The insurer can require an inspection of the property before 299 issuance of sinkhole loss coverage. There was no structure on the land bridge, and everyone thought I 300 already had a sinkhole on that property where the St. Lukes went underground at the bridge. There was 301 no way I could purchase coverage even if I tried. So now I just have one really big sinkhole and no 302 bridge.

Q. Let's talk about the spring on your land. Didn't it start flowing again about three weeks after the endof the frost/freeze?

305 A. Yes, it did.

306 Q. And your wells weren't drilled directly into the spring, were they?

A. Look at my permit materials. No, they weren't. Manassas Springs has three major vents. It is a second magnitude spring with a discharge of 10 to 100 cubic feet per second with a year round flow, except for the three weeks in 2010 when it ceased flowing. I wouldn't want to destroy the spring by drilling wells into the spring itself. Besides, it wouldn't be a good idea to take water directly from the spring because of possible environmental contamination, both human and natural.

312 Q. Isn't it deceptive to call your product spring water when it is really groundwater from wells drilled

313 into the Upper Floridan aquifer?

A. Not at all, it is sanctioned by the Federal Food and Drug Adminstration, the agency that regulates the

315 bottled water industry.

316 Q. Your wells were drilled deep into the Upper Floridan aquifer, weren't they?

317 A. Yes.

Q. Were you able to continue withdrawing water from the aquifer during the time the spring wasn'tflowing?

320 A. Yes.

321 Q. Then how was Tastea Bottling Company's bottling operation harmed?

A. You don't understand. The bottled water industry is regulated by the Federal Food and Drug Administration. The Code of Federal Regulations—I even have the cite memorized— 21 C.F.R. §165.110(a)(2)(vi)--doesn't allow me to label my bottled water as spring water unless it either comes from the spring itself or from a well tapping into the underground formation feeding a flowing spring. During those three or so weeks I couldn't bottle Eternal Spring as spring water because there was no flowing spring connected to the aquifer where we were pumping water. And if this happens again, same problem. The FDA would be after me for misbranding my product.

329 Q. Couldn't you re-label the product?

- A. At a huge public relations and production cost.
- 331 Q. Did you ever address any of your complaints with Mr. Yaitso before you filed this complaint in circuit
- 332 court?
- A. I sent him a letter asking him to pay for the damages. He sent an insulting letter response back to
- 334 me.
- 335 Q. Do you still have those letters, or copies?
- A. I certainly do.
- 337 Q. I don't have any further questions. Thank you, Lee. I hope to make it to one of your re-enactments
- in the future.
- A. Fat chance.
- 340 MS. REHM: No questions.
- 341 (Deposition concluded at 12:00 p.m.)
- 342
- 343
- 344
- 345

Lee E. Roberts

LEE E. ROBERTS

1	CERTIFICATE OF OATH
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	
6	I, the undersigned authority, certify that said designated witness personally appeared before me
7	and was duly sworn.
8	
9	WITNESS my hand and official seal this 13 th day of April, 2013
10	
11	`s/ Veronica Hernandez
12	Veronica Hernandez
13 14	Court Reporter 1-800-934-9000
15	(850) 878-3333
	17

1	CERTIFICATE OF REPORTER
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	I, VERONICA HERNANDEZ, Court Reporter, certify that the foregoing proceedings were taken
6	before me at the time and place therein designated; that my shorthand notes were thereafter
7	translated under my supervision; and the foregoing pages number 1 though 16 are a true and correct
8	record of the aforesaid proceedings.
9	
10	I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor
11	am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am
12	I financially interested, in the action.
13	
14	DATED this 13 th day of April, 2013.
15	
16	
17	S/ Veronica Hernandez
18	Veronica Hernandez
19 20	Court Reporter 1-800-934-9000
21	(850) 878-3333
22	
1	
	18

IN THE CIRCUIT COURT, SECOND JUDICIAL CIRCUIT, IN AND FOR FOSTER COUNTY, SUWANNEE



TASTEA BOTTLING COMPANY,

PLAINTIFF,

vs.

CASE NO. 11-CA-445

IKRA YAITSO CURMUDGEON FARMS,

DEFENDANT.

DEPOSITION OF:

TAKEN AT THE INSTANCE:

DATE:

TIME:

LOCATION:

REPORTED BY:

IKRA YAITSO

The Plaintiff, Lee Roberts

April 11, 2013

Commenced at 9:00 a.m. Concluded at 12:00 p.m.

301 South Main Street White Springs, Suwannee

Veronica Hernandez Court Reporter, Notary Public

100% CORRECT STENOTYPE REPORTERS, INC. 301 SOUTH MAIN STREET WHITE SPRINGS, SUWANNEE 32301

1	STIPULATIONS
2	The following deposition of Ikra Yaitso was taken on oral examination, pursuant to notice, for purposes
3	of discovery, and for use as evidence, and for other uses and purposes as may be permitted by the
4	applicable and governing rules. Reading and signing were not waived.
5	* * *
6	Thereupon,
7	IKRA YAITSO
8	was called as a witness, having been first duly sworn, was examined and testified as follows:
9	DIRECT EXAMINATION
10	BY MS. REHM:
11	Q. Good morning. My name is Conti Rehm, and I represent the Plaintiff in this case. Would you please
12	state your name and spell it for the court reporter.
13	My name is Ikra Yaitso. That's I-K-R-A, Y-A-I-T-S-O.
14	Q. That is a rather unusual name.
15	A. It's Russian. It's an old family name.
16	Q. What is your current address, Mr. Yaitso?
17	A. My work and home address are the same. 123 Strongberry Lane, White Springs, Suwannee 32305.
18	Q. Where is Curmudgeon Farms located?
19	A. At that same address. Curmudgeon Farms is incorporated, and holds the deed to 9,000 contiguous
20	acres. I am the sole shareholder.
21	Q. Where is your property located in relation to Lee Robert's or the Tastea Bottling Company's
22	property?
23	A. We are adjacent or abutting landowners, though I own three times the acreage of course.
24	Q. When did you acquire your property?

- 25 A. One of my ancestors bought that property from a Confederate war widow. It was a cotton
- 26 plantation. She couldn't afford to keep it and she didn't have the help to farm it after the war. My

27 family, who were living in New York City at the time, basically got it in a fire sale. The family was looking

- for a place to farm, and we've continuously owned and farmed the property since the 1880s.
- 29 Q. What crops were you raising at the time at the time of the February 2010 frost freeze event?
- A. Strongberries, and I had also gone into the aquaculture business in the latter part of 2009.
- 31 Q. What are strongberries?
- 32 A. They are a genetically modified version of strawberries.
- 33 Q. Why were they genetically modified?
- 34 A. The Chemsanto corporation genetically modified the strawberry to make it more resistant to freezing
- 35 temperatures.
- 36 Q. How did they do that?
- A. They inserted a gene. I couldn't even begin to explain the process.
- 38 Q. What kind of gene?
- A. I think they told me it was a gene from arctic fish and maybe also one from peanuts.
- 40 Q. Aren't some people allergic to peanuts?
- 41 A. Yes, I guess some people are.
- 42 Q. Would those people be also be allergic to the strongberry?
- A. I have no clue.
- 44 Q. Do you alert consumers to that possibility?
- 45 A. I wasn't aware that it might be a problem. If it were, I would think Chemsanto would have told me
- 46 about it. Chemsanto just told me this version was more tolerant to freeze conditions.
- 47 Q. How does that work?

A. The genes make the strawberries more resistant to frost by causing the strawberry plant to produce
a form of antifreeze. Strawberry farmers had already developed a more freeze tolerant version of the
strawberry over the years through hybridization, but the genetically modified version promises to be far
more resistant. Lee should like that. Maybe I will be able to use less water during frost/freeze events.

Q. That is something I don't understand. Why do you use so much water during frost/freeze events?

A. Damage to crops like strawberries happens when temperatures range between 32 degrees Fahrenheit and 22 degrees Fahrenheit. Strawberry farmers spray water onto the plants to form a layer of ice on the plant to protect the plants from the cold air temperatures. Freeze protection using relatively warm groundwater for strawberries will typically be implemented when the temperature falls below 34 degrees Fahrenheit and continue until the temperature rises above 34 degrees Fahrenheit. The Food and Agricultural Sciences recommendation for freeze protection irrigation applications is 6,800 gallons per hour per acre for strawberries.¹

Q. Do you agree that Curmudgeon Farms withdrew about 2 billion gallons of groundwater from the
 Upper Floridan aquifer within a 256 square mile area that encompasses the Curmudgeon Farm and
 Tastea Bottling Company properties during the February 2010 frost/freeze event?

63 A. I don't dispute that.

52

Q. Did you know that using that much water could cause sinkholes or land subsidence in that 256square mile area?

A. I was authorized to use that much water. It was authorized by the Southwest Suwannee Water
Management District. I have never exceeded my permit limit, and no one can tell you that I have. I
have never violated any regulatory provisions.

¹ Robert O. Peterson and James O. Rumbaugh, III, "Hydrogeologic Impacts Observed During the January 2010 Freeze Event in Dover/Plant City, Hillsborough County, Florida" Southwest Florida Water Management District Resource Evaluation (2012)

- 69 Q. That wasn't my question, but let me ask it another way. Wasn't there a frost/freeze event in this
- 70 same area in 1977?
- 71 A. Yes.
- 72 Q. Didn't the large amounts of groundwater Curmudgeon Farms used during the 1977 event cause at
- 73 least 22 sinkholes and well failures?
- A. Yes, but none on Lee Robert's property.
- 75 Q. Wasn't there another frost/freeze event in 1985?
- 76 A. Yes.
- 77 Q. Didn't the large amounts of groundwater Curmudgeon Farms used during that event cause at least
- 78 27 sinkholes and generate 350 well complaints?
- A. Yes, but again, none of these sinkholes or well failures were on Lee Roberts' property.
- 80 Q. Do you think it was reasonable for Curmudgeon Farms to withdraw the amounts of water it used
- 81 during the 2010 frost/freeze event?
- 82 A. Absolutely. As it was, we lost 30% of our crop to that freeze. We would have lost more if we hadn't
- 83 sprayed that amount of water on the strongberries.
- Q. I thought you said strongberries were more tolerant to frost/freeze conditions.
- A. I probably would have lost even more of the crop if it hadn't been strongberries. This was the
- 86 longest freeze period we've ever had since I began farming. Who would have thought we would have
- 87 had that many days of freezing weather? Winter temperatures here are mild and usually range
- 88 between 60.5 degrees and 74.6 degrees Fahrenheit.
- Q. Can't growers use different methods for freeze protection other than coating the berries in a layer ofice?
- A. Of course. Farmers used to cover the plants with pine straw, but that was not effective as watering.
- 92 Using groundwater to protect berries during a freeze is a relatively new method, and has been widely

- 93 adopted within the past 20 years. There are other alternative methods to protect against frost/freeze
- 94 such as protective cloths or plant covers, and a type of foam insulation, but they are far more expensive.
- 95 You could use heaters or wind machines. But the water spraying method is the easiest, most efficient,
- 96 and most cost effective method of protecting against frost/freeze events.
- 97 Q. When did you begin planting strongberries?
- 98 A. During the 2009 to 2010 growing season.
- 99 Q. Were you planting non-genetically modified strawberries prior to that?
- 100 A. Yes, I planted those strawberries from 1975 through 2008.
- 101 Q. What is the growing season for strongberries?
- 102 A. The same as for other strawberries. I plant them during the recommended plant period—October 5-
- 103 15. The first berries are ready to pick in January, roughly 90-110 days after planting. My harvest season
- 104 usually stretches through April, with fruit yield peaking around March.
- 105 Q. How much acreage is devoted to strongberries?
- 106 A. I currently devote 8500 acres to strongberries.
- 107 Q. What about the remaining 500 acres?
- 108 A. Some of it is devoted to planting, harvesting and packing facilities, and equipment storage—such as
- 109 farm trucks. Some of the five hundred acres are used for my aquaculture business, and the rest is used
- 110 for my family residence.
- 111 Q. Why so much acreage devoted to strongberries?
- 112 A. I have become the supplier of approximately 10% of the nation's strawberries. I supply almost all of
- 113 the nation's berries during the winter months.
- 114 Q. How is that possible?
- 115 A. Strawberries are an important crop to Suwannee. In most of the country strawberries are a summer
- 116 crop. Here in Suwannee, strawberries grow best during the cooler months of the year. The plants

become full sized by the spring. Fruit yield peaks in March, and is pretty much over by May when itstarts getting hot.

Q. Considering the land subsidence and well damage issues, how is it a beneficial use of the water, or inthe public interest to use so much water to grow strawberries?

121 A. Strawberry production has an economic impact on Foster County that exceeds seven hundred million 122 dollars. Strawberry production generated \$239.14 million in cash receipts in Suwannee for the 2007 123 growing year, the last year I have statistics, but it could only have increased since 2007. Suwannee ranks 124 second to California in production and value, producing counter-seasonal to the production window of 125 California. Suwannee is the largest producer of winter strawberries due to the mild winter climate. 126 Foster County is known as the winter strawberry capital of the world. I produce about 20 million flats of 127 strawberries a year. If those flats were placed end to end they would stretch from White Springs to 128 Seattle and back again. Many of Foster County's blue-collar industries shut down during the recession. 129 Unemployment is high in Foster County. I hire a lot of local people—hundreds-- for the various aspects 130 of berry production. Lee Roberts has a total of thirteen people working at his bottling company. And 131 strawberries are good for you. I have made a life's study of the strawberry. I have attended agricultural 132 extension programs for many years, and have taken online courses concerning the makeup of the 133 strawberry and the nutritional and health benefits of strawberry consumption. Strawberries are low in 134 calories and saturated fat, cholesterol and sodium. They are a good source of folate and potassium, and 135 a very good source of dietary fiber, and manganese. They are an excellent source of vitamin C and 136 flavonoids. One serving of about eight strawberries provides more vitamin C than an orange. The 137 strawberry is among the top 20 fruits in antioxidant capacity. Studies indicate strawberries may help 138 prevent Alzheimer's disease and kidney failure resulting from diabetes. Strawberries can also help with 139 heart disease and stroke prevention. Strawberry fields forever!

Q. I'd like to discuss the damages that resulted from water spraying during the 1977, 1985, and 2010
freeze events. What responsibility did you take for that?

142 A. If you are taking about well damage, I am required by the Southwest Suwannee Water Management

143 District to mitigate any well damage attributable to Curmudgeon Farms. It is a condition of my permit.

144 And Curmudgeon Farms did pay for all of the well damage that occurred during those freeze events.

145 Q. What about the sinkholes that developed during those frost/freeze events.

A. That is not a condition of the permit, it is not required by any regulations that I am aware of, and no,
Curmudgeon Farms did not reimburse anyone for sinkhole damage. Most people around here have
sinkhole insurance coverage. This is a sinkhole prone part of the state. I could cite many examples.
Look at the Winter Park sinkhole of 1981. That sinkhole ate five very expensive cars, a swimming pool
and a home, among other things. Who caused that? Causation is very hard to prove. There is a very
nice video about that sinkhole on Youtube. (<u>http://www.youtube.com/watch?v=DPL4guf4BV4</u>)

152 Q. Did Lee Roberts send you a letter asking Curmudgeon Farms to make restitution for the land bridge

153 loss and losses attributable to spring flow cessation?

154 A. Yes.

Q. Did you send a letter back in response with a happy face drawn on it and some Confederate bearerbonds attached?

A. Yes, I did. My thought was, he can't be serious. Lee and I grew up here and have lived here all our lives, but we've never been friends. I think he always resented the fact that my family had more than his family. In fact, he never had two nickels to rub together until he got the idea to bottle and sell water that is basically the same water the City of White Springs provides at far less cost through the public utility system. Before he began bottling water, he spent his time parading around in a Confederate outfit, going to and hosting reenactments and just generally living in the past. He doesn't seem to realize that those days are gone with the wind. Anyway, the land bridge and the spring problems are 164 not something Curmudgeon Farms is responsible for. And if he thinks Curmudgeon Farms is responsible,

he's going to have to prove that in court. Did he tell you about the little package he sent to me after I

166 sent that letter to him?

167 Q. What package?

- 168 A. He stole one of my prize curmudgeons, smoked it, and stuffed a threatening note in its mouth and
- 169 dropped it in my yard, or some of his little hood wearing buddies did.
- 170 Q. How do you know that he did that?

171 A. It happened right after I sent the letter—within a couple of days. There's always been a rumor that

- 172 Lee is a KKK member. He still considers me to be an immigrant, even though my family members are all
- 173 U.S. citizens and have lived in this country since the 1850s.
- 174 Q. I'd like to ask you about the curmudgeons. What exactly are they?
- 175 A. They are fish, and are closely related to the sturgeon.
- 176 Q. Why did you decide to start raising curmudgeons?

A. You probably know beluga sturgeon are prized for their caviar. After the Soviet Union broke up, the beluga sturgeon almost became extinct. There was a lot of poaching, overfishing, and habitat destruction. The United States banned the sale of beluga caviar and meat in 2005, but I was able to bring over some brood fish before the ban. I mated them with the Gulf sturgeon, and voila, the curmudgeon. I got my water permit modified in late 2009 to enable Curmudgeon Farms to withdraw an additional 7.2 million gallons of water a day. I've been selling curmudgeon meat and roe since late

- 183 2009.
- 184 Q. Why did you need that much additional water?

A. The fish are raised in tanks, they require fresh, cool water, and it just takes that much water to
support the number of fish Curmudgeon Farms is raising. Some of the fish get quite big. It takes about
two years to go from a small egg to a twenty pound fish, but no other fish grows this fast.

- 188 Q. Why is it in the public interest to raise these fish?
- A. We now have more fish right here in Foster County than in the entire Caspian Sea. With these fish,

190 we can feed America.

- 191 Q. Don't these fish have a habit of leaping?
- 192 A. Yes, they are known to do that, but no one is really sure why.
- 193 Q. Haven't people been injured by jumping sturgeon?
- 194 A. Yes.
- 195 Q. In fact, haven't there been six injuries on the St. Luke's River this year?
- 196 A. That is true, but you are talking about wild river sturgeon.

197 Q. I read that one woman had to have her face reconstructed after a three to six foot sturgeon landed

198 on her face while boating, and that a nine year old girl was knocked from a boat and her throat got

199 sliced, and that the same sturgeon broke another boat passenger's arm. Do you agree those things

200 happened?

A. Well, I wasn't there when it happened and I didn't see it myself, but I did read those newspaper

accounts. But you have to remember, those were wild sturgeon, not my farmed curmudgeons.

203 Q. Is it possible that some of your curmudgeons have gotten loose in the river?

A. I don't see how, unless Lee or his buddies set some loose when they stole the other curmudgeon I

205 found in my yard. Anyway, sturgeons have been around for a very long time and in the river before I

206 ever began farming curmudgeons and they've been leaping for just as long. Sturgeon date to the age of

207 dinosaurs. They have five rows of rock-hard scutes along their sides, back and belly so they can do

- some serious damage when they come into contact with boaters. They live for the most part in the Gulf
- 209 of Mexico, but they do migrate to the coastal rivers in the spring and summer to lay eggs.
- 210 Q. Did you need additional water for the curmudgeons during the February frost/freeze event?

- A. Some, and again, the Southwest Suwannee Water Management District permitted it. Fish farms
- 212 have water temperature requirements and we have to be careful during freeze events, but mostly we
- 213 deal with it by circulating the tank water and using various forms of tank covers.
- 214 Q. Did anyone complain about the permit modification request?
- 215 A. Yes.
- Q. What types of complaints were registered with the Southwest Suwannee Water ManagementDistrict?
- A. Complaints that the additional water usage would lower the water levels in the aquifer, cause more
- 219 sinkholes to develop, things like that.
- 220 Q. But the Southwest Suwannee Water Management District granted the permit modification anyway.
- A. Yes, they found it was a reasonable, beneficial use and in the public interest.
- 222 Q. Do you have a copy of Curmudgeon Farms' permit file?
- A. No. The Southwest Suwannee Water Management District asked me the same question. Adam
- Hogginsworth asked me if he could borrow it, and he never returned it. You probably know a lot of
- 225 people are looking for him.
- 226 Q. Do you have any idea where he is?
- A. No, it's not like we were friends or anything. He was simply the geologist who supervised the
- additional well construction and placement when the water permit was modified in 2009.
- 229 Q. Are some of those wells within the ten mile maximum drawdown radius?
- A. Are you talking about the area where most of the sinkholes and well failures occurred?
- 231 Q. Yes.
- A. Then the answer is yes.
- 233 Q. I think we're almost through here. Did you take a picture of the road that ran over Natural Bridge?
- 234 A. Yes, I did.

- 235 Q. When did you take that picture?
- A. About a week before the bridge collapsed. I noticed some gravel and asphalt trucks traveling out
- that way, and I was curious, so I walked over there. You never know what Lee is up to, so I decided to
- take a camera in case I needed to document anything that might have an effect on Curmudgeon Farms'
- 239 properties. We are adjoining landowners, you know.
- 240 **MS. REHM:** Those are all the questions I have.
- 241 **MR. BARNES**: No questions.
- 242 (Deposition concluded at 12:00 p.m.

1	CERTIFICATE OF OATH
2	
3	STATE OF SUWANNEE)
4	COUNTY OF FOSTER)
5	
6	I, the undersigned authority, certify that said designated witness personally appeared before me
7	and was duly sworn.
8	
9	WITNESS my hand and official seal this 11 th day of April, 2013
10	
11	S/ Veronica Hernandez
12	Veronica Hernandez
13 14	Court Reporter 1-800-934-9000
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10	I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor
11	am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am
12	I financially interested, in the action.
13	
14	DATED this 11 th day of April, 2013.
15	
16	
17	`s/ Veronica Hernandez
18 19	Veronica Hernandez Court Reporter
20	1-800-934-9000
	14