

1953

Little Cottonwood Water Company et al v. Sandy City et al : Brief of Respondents

Utah Supreme Court

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Recommended Citation

Brief of Respondent, *Little Cottonwood Water Co. v. Sandy City*, No. 7898 (Utah Supreme Court, 1953).
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In the Supreme Court of the State of Utah

LITTLE COTTONWOOD WATER
COMPANY, a corporation, and
SALT LAKE CITY, a municipal
corporation,

Plaintiffs and Appellants,

vs.

SANDY CITY, a municipal corpora-
tion, MIDVALE CITY, a municipal
corporation, and JOSEPH M.
TRACY, State Engineer of the State
of Utah,

Defendants and Respondents.

FILED

JAN 2 1953

Clerk, Supreme Court, Utah

Case No. 7898

BRIEF OF RESPONDENTS

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TABLE OF CONTENTS

	Page
STATEMENT OF THE CASE	3
STATEMENT OF FACTS	4
STATEMENT OF POINTS	13
ARGUMENT:	
POINT I:	
RELATIVE RIGHTS CONCERNING THE ADJUDICA- TION OF THE WATERS OF LITTLE COTTONWOOD CREEK ARE NOT AT ISSUE, AND THERE IS UN- APPROPRIATED WATER IN THE PROPOSED SOURCE	14
POINT II	
WATERS PROPOSED TO BE CAPTURED ARE UN- APPROPRIATED AND NOT PART OF SURFACE OR SUBSURFACE WATERS SUPPLYING LITTLE COT- TONWOOD DECREED RIGHTS	19
POINT III	
THE RESPONDENTS HAVE SHOWN THAT THERE WAS UNDEVELOPED AND LOST WATER WITHIN THE AREA IN QUESTION	24
POINT IV	
THE EVIDENCE CONCLUSIVELY SHOWS THAT THE WATER CAPTURED IS NOT OF FULLY APPRO- PRIATED SOURCES	25
POINT V	
EXHAUSTIVE AND PRACTICAL QUANTITY TESTS OVER A PERIOD OF TIME, THE RESULTS OF WHICH CONCLUSIVELY SHOW UNAPPROPRIATED WATER, ARE SUFFICIENT TO WARRANT THE APPROVAL OF AN APPLICATION TO APPROPRIATE WATER..	40
CONCLUSION	43

TABLE OF CASES CITED

American Fork Irrigation Co., et al v. Linke, et al, 239 P.2d 188..	18, 21
Big Cottonwood Tanner Ditch Co. v. Shurtliff, et al, 49 Utah 569 164 P. 856	31

Eardley v. Terry, 94 Utah 367, 76 P.2d 362.....	16, 19, 26, 27, 29
Fuller, et al v. Sharp, et al, 33 Utah 431, 94 P. 813	24
Holman v. Christensen, 73 Utah 389, 284 P. 457	25
Howcroft v. The Union Jordan Irrigation Co., 25 Utah 311, 71 P. 487	31
Lehi Irrigation Co. v. Jones, et al, 115 Utah 136, 202 P. 2d 892....	27
Little Cottonwood Water Co. v. Kimball, 76 Utah 243, 289 P. 116	15, 18, 19, 29, 34
Peterson, et al v. Lund, 57 Utah 162, 193 P. 1087	18
Rocky Ford Irrigation Co. v. Kents Lake Reservior Co., 104 Utah 202, 135 P. 2d 108	19, 27, 28
Salt Lake City and Salt Lake Canal Co. v. Salt Lake City Water and Electrical Power Co., 24 Utah 249, 67 P. 672	19
Salt Lake City, et al v. Gardner, et al, 39 Utah 30, 114 P. 147....	29, 31
Silver King Con. Min. Co. v. Sutton, 85 Utah 297, 39 P. 2d 684.....	25
Sowards, et al v. Meagher, 37 Utah 212, 108 P. 1112	18
Tanner v. Bacon, 103 Utah 494, 136 P. 2d 957	17
United States v. District Court of 4th Judicial District, et al., 238 P. 2d 1132	17, 19
Warren Irrigation Co. v. Charleton, et al, 58 Utah 113, 197 P. 1030	24
Whitmore v. Murray City, 107 Utah 445, 154 P. 2d 748	15, 17
Whitmore v. Welch, 114 Utah 578, 201 P. 2d 954.....	15, 27, 28, 29
Wrathall v. Johnson, 86 Utah 50, 40 P. 2d 755	18
Yates v. Newton, 59 Uath 105, 202 P. 208	34

STATUTES CITED

Title 100-3-8, U.C.A., 1943	26
Title 100-3-12, U.C.A., 1943, as amended	30
Title 100-3-14, 15, U.C.A., 1943, as amended	16
Title 100-5-12, U.C.A., 1943, as amended	20

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BRIEF OF RESPONDENTS

STATEMENT OF THE CASE

The respondents concur with the statement of the case contained in the appellants' brief.

STATEMENT OF FACTS

Appellants' brief contains, in the statement of facts, various statements which do not take into account all of the testimony and evidence presented at the trial, and many statements which are argumentative rather than pure statements of fact. The respondents feel constrained, therefore, to present herewith their own statement of the facts presented at the trial of the case.

The Little Cottonwood watershed presents several unique features. It is a canyon in the Wasatch Mountain Range which, in its latest geological development, has been influenced principally by glacial action. The course of the canyon is relatively straight from east to west, and it inclines steeply in its westerly course. The bottom of the canyon is filled with a glacial deposit, which readily absorbs and transmits water. During the greater part of every year all of the *surface* flow of Little Cottonwood Creek is appropriated. During the late Fall and Winter months, all of the surface flow reaching the point described on the various exhibits and in the testimony as the "Murray Power Plant Intake" is diverted by means of a concrete dam into a pipeline which carries such surface flow beyond the mouth of the canyon and through the Murray City Power Plant. The glacial moraine is crossed at a point near the mouth of the canyon by a fault commonly known and referred to as the "Wasatch Fault."

It is acknowledged by all of the persons appearing in this matter that the decree of the District Court in and for Salt Lake County, State of Utah, in the case of Union and East Jordan Irrigation Company v. Richards Irrigation Company,

et al., Case No. 4802, commonly referred to as the "Morse Decree," determines the surface rights of the appropriators of water in Little Cottonwood Creek as of the date of the entry of the decree June 16, 1910. It is further acknowledged by all concerned that the decree referred to defines the rights of the appropriators of 303.57 second feet of the flow of Little Cottonwood Creek. It is nowhere stated in the Decree or in the Findings of Fact and Conclusions of Law in the said case that there is no unappropriated water in the stream or in the Little Cottonwood Watershed. The decree merely defines the rights of appropriators to that date and certainly does not foreclose the possibility of any additional appropriations being made. As a matter of fact, it is conceded by the parties to this action that during certain seasons the surface flow of Little Cottonwood Creek exceeds 303.57 second feet, and that the excess over that amount remains unappropriated. It has also been shown by the expert witnesses for all of the parties to this action that there is a substantial quantity of water which flows or percolates through the material filling the bottom of Little Cottonwood Canyon toward the west, crosses the Wasatch Fault and continues to flow underground and apparently forms a part of the underground water in the Salt Lake Valley. This is clearly brought out by the testimony of the appellants' expert witness, Dr. Marsell (R. 127, 133 and 137) and by the testimony of Mr. Ward of the State Engineer's Office (R. 53, 54, 55 and R. 193, 194). As far as the parties to this action are concerned, this water which leaves the confines of the canyon and flows underground across the Wasatch Fault, and thence into the valley, appears without contradiction to be unappropriated water. It is clearly not included within

the terms of the Morse Decree, and it appears equally clear that none of the parties to this action claims to be an appropriator of this water.

We therefore submit, as an uncontroverted fact borne out by the testimony of witnesses for all parties concerned in this action, that there are at least two supplies of unappropriated water in Little Cottonwood Canyon consisting first of water in the surface stream in excess of 303.57 second feet which, during certain seasons, is not diverted and flows down the natural water course to Great Salt Lake, and second, of a continuous and substantial flow under the surface of the ground, across the Wasatch Fault, and into the underground supply of Salt Lake Valley. The appellants seek to place great stress upon the fact that the source of the water which respondents seek to appropriate is not shown. We contend that the source of the unappropriated water is immaterial, and the only fact of importance in this proceeding is the fact that the water exists and is unappropriated.

The peculiar features of the Little Cottonwood watershed and the fact that during a major portion of each year the surface flow of Little Cottonwood Creek is entirely diverted at the Murray Power Plant Diversion Dam through a tight pipeline, furnishes us with a unique opportunity to make a study of the water, both underground and at the surface, below the point of such diversion and concurrently therewith. Each of the respondents, Midvale City and Sandy City, has drilled a well in the Despain Springs area. The location and nature of these wells, together with the location and nature of other features of the area which are necessary to the consideration

of this case, are graphically portrayed on Defendants' Exhibit 1. The respondents, after the wells had been drilled and tested, were of the opinion that hitherto unappropriated water could be appropriated and diverted by means of the wells, and accordingly filed the application for appropriation which is the subject of this action.

The action of the State Engineer was by no means hasty or ill considered upon the application of the respondents. On the contrary, as stated by Mr. Ward (R. 53), the State Engineer and his staff considered the matter very seriously over a period of more than ten years, and required the respondents to submit more information in support of the application than would normally be required (R. 62).

In the Fall of 1944, a series of tests were commenced which were planned and designed to make possible a thorough and scientific study of the water in this area by all parties concerned. All of the parties to this action were notified of the tests and were given the opportunity to observe all of the procedures followed by the respondents and to make such independent tests and observations as they might choose to do. According to the evidence, representatives of the appellants were fully informed as to the procedures followed and observed the entire proceedings of the respondents during the course of the tests for the ensuing several months. In addition to observing all activities of the respondents in this area, the appellants secured the services of Dr. Marsell to make independent examinations, to which he has testified.

It was conceded by all concerned that the pumping of the wells had an immediate and direct affect upon the flow of

various springs in the adjoining area into the channel of Little Cottonwood Creek. One of the unique conditions, however, which made these tests possible is the fact that Midvale City and Sandy City, during the time when all of the surface flow of Little Cottonwood Creek is diverted at the Murray Power Plant Dam, are the owners of primary water rights in excess of the total amount which naturally flows to the surface from seeps and springs below the said dam. With the exception of the North Despain Ditch and the Granite Water Company, the respondents are entitled, during these periods, to the use of the entire surface flow of the creek. Therefore, subject only to supplying the rights of the North Despain Ditch and the Granite Water Company, the respondents, to the extent that they were drying up the creek, were merely using a new means of diverting their primary water rights. The right so to do has been granted by the State Engineer and affirmed by the District Court upon appeal.

The tests were carried on under the supervision of the State Engineer from November, 1944, through April, 1945. During this period of time, the wells were alternately pumped separately and together so that observations could be made of the affect upon the water in the area of pumping both wells together, pumping either one separately, and failing to pump either.

The respondents, during this period of time, maintained a system of measuring weirs by means of which they could measure the flow of water in Little Cottonwood Creek and the various contributing sources from the point below the Murray Power Plant Diversion Dam where water first naturally occurs in the channel of the creek to the head of the Sandy

Ditch, where during all of these periods, the last of the appropriated water is diverted. During the months mentioned, frequent and regular measurements were made of the flow of water at these various weirs. The record of these measurements is graphically portrayed in Defendants' Exhibit 2. During the same period of time, Dr. Marsell placed a series of pegs in the creek channel and other points where the water naturally occurs in the area, whereupon he made regular periodic measurements of the water level. As stated by Dr. Marsell, this was not a test of the quantity of water but was described as an "interference test" to determine the extent to which the pumping of the wells interfered with the natural occurrence of surface water in the area.

The results of the two tests appear to corroborate each other in most particulars.

As a result of these examinations, and as more particularly appears from the various exhibits on file herein, the following facts can be drawn:

1. When either of the two wells mentioned is pumped, there is a lowering of the water table in the immediate vicinity of the wells, and an immediate decrease in the flow of water from the springs in the area of the wells into the channel of the creek. This effect continues for a number of days after the pumping of such wells commences and then appears to decrease, or "level off." The pumping of both wells contemporaneously has more effect upon the water table and flow of the springs than the pumping of either well separately. The pumping of either well has an immediate effect upon the level of the water in the other well.

2. The continuous pumping of the wells during about 75 days of the period during which the tests were carried on resulted in a yield of water approximately 0.6 c.f.s. in excess of the amount which the springs and other sources were yielding naturally before the commencement of pumping.

3. The pumping was carried on during a period when normally the water table and the flow of water in the creek channel would be gradually diminished.

4. The pumping lowered the level of water at all points where pegs were driven by Dr. Marsell. The effect upon the pegs was first observed in from 10 to 270 minutes after the pumping commenced, and the water completely disappeared from the surface at the pegs in from 1 to 28 days.

5. The pumping of the wells decreases the flow of spring water into Little Cottonwood Creek in and below the Despain Springs area within a matter of minutes after the pumping is commenced. The decrease in the flow of these springs continues for 5 or 6 days, and then the effect of the pumping seems to disappear or become very much less noticeable.

6. When the pumps are shut down, the water reappears at the ground surface at the locations of the pegs placed by Dr. Marsell in from 4 hours to 8 days.

7. Upon the termination of pumping, the flow of various springs in the Despain Springs area into Little Cottonwood Creek is resumed and increases sharply within periods ranging from a few minutes to a few hours. Thereafter, within a few days the flow of these springs is substantially as high, or higher, than when the pumping is commenced. When the

pumping is terminated, the flow of the Granite Water Company's spring increases within a period of 4 or 5 days.

Mr. Richards and Mr. Ward are both of the opinion, after their exhaustive research in the area, that the pumping of the wells diverts water which would otherwise flow underground across the Wasatch Fault. Dr. Marsell is of the opinion that the pumping of the wells does not have an effect so widespread that it affects the water flowing across the Wasatch Fault. He testified, however, (R. 152, 153) that the wells in question might be drilled to a sufficient depth and pumped in sufficient quantity to interrupt the underflow of the stream and substantially diminish the quantity of water escaping through the fault. There is a difference of opinion between Mr. Richards and Mr. Ward, on the one hand, and Dr. Marsell on the other hand, as to whether or not the amount of water withdrawn by the present wells is sufficient to divert the water which would otherwise remain unused and unappropriated, but they agree that at least by deepening the wells and enlarging the pumping capacity this water can be diverted.

Dr. Marsell also expresses the opinion that a part of the unwatered area created by the pumping of the wells must be restored by the first water overflowing the Murray Power Plant Diversion Dam and flowing down the surface channel. His own experiments, as well as those conducted by others, show, however, that within a very short time after the termination of the pumping, water appears at the surface of the creek channel at the furthestmost and uppermost points at which it occurred naturally prior to the pumping. He has repeatedly stated in his testimony, and it is reiterated in the

appellants' brief, that water cannot possibly appear at the surface of the ground until the gravel and other material underlying the surface is completely saturated.

Dr. Marsell stated in his testimony (R. 75) that his first investigation of the water in Little Cottonwood Canyon was in February, 1945, and (R. 128) that he has made no investigation of the flow of water at the Granite Springs and is not familiar with the springs. It appears that the entire area of his investigation is that within which he has placed his pegs and made measurements thereupon. These pegs are all within the Despain Springs Area, and they all showed the same effect. His conclusion as to the effect of pumping the wells beyond these pegs is based entirely upon hypothesis.

Dr. Marsell conducted an experiment whereby he placed some water and gravel in a glass beaker and withdrew some water therefrom by means of a pipette. He attempted to draw an analogy between this condition and the water naturally occurring in Little Cottonwood Canyon. However, he testified (R. 134) that the condition in Little Cottonwood Canyon is not analogous to a closed vessel but that it is a trough open at one end through which the water flows and out of which the water discharges, both at the surface and underground. It is also stated (R. 137) that he has made no measurement of the volume or rate of flow of the underflow of Little Cottonwood Creek.

Mr. Ward and Mr. Richards have testified that they have been actively engaged in observing and working with the waters of Little Cottonwood Canyon continuously for many years.

Other statements and assertions made by the appellants in their statement of facts are argumentative and will be dealt with in our argument hereinafter contained.

STATEMENT OF POINTS

POINT I.

RELATIVE RIGHTS CONCERNING THE ADJUDICATION OF THE WATERS OF LITTLE COTTONWOOD CREEK ARE NOT AT ISSUE, AND THERE IS UNAPPROPRIATED WATER IN THE PROPOSED SOURCE.

POINT II.

WATERS PROPOSED TO BE CAPTURED ARE UNAPPROPRIATED AND NOT PART OF SURFACE OR SUBSURFACE WATERS SUPPLYING LITTLE COTTONWOOD DECREED RIGHTS.

POINT III.

THE RESPONDENTS HAVE SHOWN THAT THERE WAS UNDEVELOPED AND LOST WATER WITHIN THE AREA IN QUESTION.

POINT IV.

THE EVIDENCE CONCLUSIVELY SHOWS THAT THE WATER CAPTURED IS NOT OF FULLY APPROPRIATED SOURCES.

POINT V.

EXHAUSTIVE AND PRACTICAL QUANTITY TESTS OVER A PERIOD OF TIME, THE RESULTS OF WHICH CONCLUSIVELY SHOW UNAPPROPRIATED WATER, ARE SUFFICIENT TO WARRANT THE APPROVAL OF AN APPLICATION TO APPROPRIATE WATER.

ARGUMENT

POINT I.

RELATIVE RIGHTS CONCERNING THE ADJUDICATION OF THE WATERS OF LITTLE COTTONWOOD CREEK ARE NOT AT ISSUE, AND THERE IS UNAPPROPRIATED WATER IN THE PROPOSED SOURCE.

Virtually all of the argument contained in the appellants' brief is based upon the major premise that the Morse Decree, which adjudicated water rights in Little Cottonwood Creek as of June 16, 1910, amounts to an adjudication that there is no unappropriated water in the Little Cottonwood Watershed. It becomes immediately apparent that this is not the case, and that the major premise of the appellants' entire case fails.

The parts of the Morse Decree quoted in appellants' brief in support of this contention are as follows:

"Paragraph 35. No one is entitled to any of the water of Little Cottonwood except as he may be an owner in some of the ditches to which water is distributed, and then only as such ditch is entitled to water as herein found."

"Paragraph 42. All persons who have any interest

in the wtaer of Little Cottonwood have been duly served and have either pleaded herein or the time to plead has elapsed; and no one has any right to such water except as specified in this decree."

"Paragraph 35" saying that no one is entitled to such water except as therein specified, means only that no one is the owner of such water except as so specified. "Paragrpah 42" also refers only to the ownership of water. An examination of the decree certainly discloses no holding to the effect that there is no water except as described in the decree, and such a holding in an action of this character would be improper.

To further point out the fallacy of the appellants' position, the court has judicial knowledge of several instances in which applications to appropriate water in Little Cottonwood Canyon subsequent to the date of the Morse Decree have been approved. The case of *Whitmore v. Murray City*, 107 Utah 445, 154 P. 2d 748; *Little Cottonwood Water Company v. Kimball*, 76 Utah 243, 289 P. 116, and *Whitmore v. Welch*, 114 Utah 578, 201 P. 2d 954, are all cases wherein applications to appropriate water in Little Cottonwood Canyon have been approved by the State Engineer and the approval has been affirmed by this court. The appellants herein are jointly interested in an application to appropriate 3 second feet of water which they claim to save by the diversion of water through the Murray City Power Plant pipeline. The record of this application appears from the exhibits in the instant case. Certainly, if, as the appellants so earnestly contend, all of the water in Little Cottonwood Creek and in the entire watershed tributary thereto were deemed to have been appropriated as of the date of the Morse Decree, these subsequent applications could

not have been approved. The evidence of all of the expert witnesses for both parties to this action shows conclusively, without controversy, that there is water which flows underground through the area where the wells are drilled, and escapes across the Wasatch Fault into the underground basin below and which, for the purpose of this action, is unappropriated. The evidence further shows conclusively, and without controversy, that there are times when the surface flow of Little Cottonwood Creek exceeds the total water decreed to have been appropriated by the terms of the Morse Decree.

The appellants attempt to point out that the results of the decision in the instant case affect water rights in canyon streams from Colliston to Nephi. If this were true, such result would not necessarily be undesirable. The policy of the law, as stated by our Legislature and in numerous cases by this court, is to encourage the development and appropriation of water, and the application thereof to a beneficial use. The only question presently before this court, however, is the respondents' application to appropriate 1 second foot of water in Little Cottonwood Canyon. The appellants are pursuing their right to appeal to your Honorable Body as set forth in *Title 100-3-14, 15, U.C.A., 1943*. This court, in *Eardley v. Terry*, 94 Utah 367, 76 P. 2d 362, said:

"When an appeal is taken from the decision of the state engineer in such a case, the trial court is required to determine the same questions de novo. It determines whether the application should be approved or rejected and does not fix the rights of the parties beyond the determination of that matter. The issues remain the same upon an appeal to this court. All

that the district court or this court, on appeal from the district court, is called upon to do is to determine whether the application should be rejected or approved."

To this effect, see *Tanner v. Bacon*, 103 Utah 494, 136 P. 2d 957; *Whitmore v. Murray City*, supra, which were reaffirmed again by the recent decision of *United States v. District Court of Fourth Judicial District in and for Utah County, et al.*, 238 P. 2d 1132.

The respondents readily admit the authenticity of the Morse Decree, have been bound by it in the past, and expect to continue to abide by the terms therein. (Exhibit 3, R. 13, 16). We readily concede that the State Engineer cannot remove vested rights which have been previously established. However, the problem of priorities between appropriators applies only to vested rights and not to the right to appropriate water in the future. In this respect, we refer you to *Tanner v. Bacon*, supra, wherein the court said:

"The statute relating to priorities between appropriators applies only to vested rights and not to the right to appropriate water in the future, which latter right is governed by statute relating to the approval of application, and hence every person who applies for unappropriated water does not have under the doctrine of priority, an unqualified right to have such application approved."

To follow appellants' theory concerning the Morse Decree, or like decrees, would forever foreclose future applications for the development of new water anywhere within the geographical confines of a stream of water. This, of course, is

absurd and to pursue such a policy would repeal all the sound water law that has been established before and after statehood. It has been the policy for many, many years to encourage new applications. In one of appellants' own cases, namely, *Little Cottonwood Water Company v. Kimball*, supra, the court said:

"In an arid region water is precious, and it is the undoubted policy of the law to prevent its waste and promote its largest beneficial use. * * * The legislature did not intend to vest the power in the state engineer to determine the relative rights of an old appropriation against a new appropriation. That is a question which involves intricate and difficult problems of both law and fact and its determination is particularly a judicial function. The state engineer must in general inquire into the extent of prior rights but he does not have the facilities to do more than inquire in a very general way. Since the policy of the law is to prevent waste and promote the largest beneficial use new applications should be favored and in a doubtful case should be approved."

To this effect see also *Peterson, et al. v. Lund*, 57 Utah 162, 193 P. 1087.

This court has noted in previous cases that the filing of an application and the making of an appropriation are not one and the same thing. To this effect see *Wrathall v. Johnson*, 86 Utah 50, 40 P. 2d 755; *Sowards, et al. v. Meagher*, 37 Utah 212, 108 P. 1112.

The court as recently as December 21, 1951, in *American Fork Irrigation Co., et al. v. Linke, et al.*, 239 P. 2d 188, said:

"A judgment reversing State Engineer's order denying application for change of use of appropriated

irrigation water will not be reversed on ground that proposed change would invade vested rights of other than applicants, as a remedy is available, if applicants interfere with or diminish such rights in executing plan, particularly where trial court approved application subject to and without prejudice to other's rights and awarded no vested rights, but simply allowed applicant to proceed with plans specifically conditioned by court on respecting other's rights."

See also *Rocky Ford Irrigation Co. v. Kents Lake Reservoir Co.*, 104 Utah 202, 135 P. 2d 108; *Eardley v. Terry*, supra; *Little Cottonwood Water Co. v. Kimball*, supra, and *United States v. District Court of Fourth District, et al.*, supra.

An appropriator of the waters of a river or lake does not have the exclusive right to manage and control the use of all the water in the lake or flowing in that river. Such water is *publici juris*, and others have the same right to use it as the appropriator so long as they do not interfere with the appropriator's use. See *Salt Lake City and Salt Lake Canal Co. v. Salt Lake City Water and Electrical Power Co.*, 24 Utah 249, 67 P. 672.

POINT II.

WATERS PROPOSED TO BE CAPTURED ARE UN-APPROPRIATED, AND NOT PART OF SURFACE OR SUBSURFACE WATERS SUPPLYING LITTLE COTTONWOOD DECREED RIGHTS.

The appellants in their argument under Point II commence by stating the fallacious major premise that all of the natural

flow of the creek is appropriated, and go on to attempt to show that the natural flow of the creek is all of the water in the watershed.

The respondents have not attempted, at any point in this case, to define the natural flow, the surface flow, or the sub-surface flow of the creek, and do not attempt now to do so because we deem any such definition immaterial to the issues herein.

An examination of the Morse Decree will clearly show, however, that it defines the rights of persons who have diverted and appropriated the *surface flow of Little Cottonwood Creek by means of open ditches. All of the rights defined therein are appropriations of water naturally occurring at the surface of the ground. No reference is made therein to appropriations of underground water.* Since the date of the entry of the Morse Decree, the conditions which then prevailed have been altered principally by the fact that the appellants and others have, during a part of each year, diverted all of the surface flow of the stream through the Murray Power Plant pipeline and syphoned the water so diverted into the Sandy Ditch below the mouth of the canyon to satisfy the rights of appropriators defined by the Morse Decree. Also, since 1910, our concepts of the nature of underground water and our laws relative thereto have undergone several important changes. These changes are represented and illustrated by the enactment, in 1935, of the law commonly referred to as the "Underground Water Law," and which has been codified as *Section 100-5-12, U.C.A., 1943*, and other sections relative thereto. The respondents introduced a copy of the Morse Decree in evidence to

inform the court as to the *existing surface rights* in Little Cottonwood Creek. As hereinbefore pointed out, any question of conflicts between appropriators is not a proper issue in this case. The appellants argue that the surface flow and the underflow are indistinguishable. Here, however, we have a condition where the surface flow is entirely diverted and the underground water is no longer "underflow" because there is no surface flow to be supported thereby. The uncontradicted evidence clearly shows that a part of the underground water flowing down the canyon finds its way to the surface of the creek in seeps and springs, but that the major part of it crosses the Wasatch Fault underground and is lost in the underground basin below.

The authorities cited by the appellants deal entirely with cases involving a conflict between respective appropriators of water. There is no such issue before this court. See *American Fork Irrigation Company, et al., v. Linke, et al.*, supra.

Let us analyze the case of *Richards Inv. Co. v. Westview Inv. Co.*, relied upon by the appellants in their brief at pages 28-29, wherein reliance is placed upon the following:

" * * * Any appropriator of water from the central channel is entitled to rely and depend upon all the sources which feed the main stream above his own diversion point, clear back to the farthest limits of the watershed."

What is the fact situation in the case at bar and how does it compare in respect to the case above relied upon by the appellants? We respectfully submit, and such cannot be refuted, that results of the investigations and measurements made by the respondents, which were very ably, completely,

and graphically presented by Defendants' Exhibit No. 2, as well as the rest of the evidence adduced, definitely and clearly show that no one except the respondents and Sandy Irrigation Company (not a party to this suit), has the right to divert water between the Murray Power Plant pipeline intake at the Whitmore Oxygen Plant and the Sandy Ditch, and that the respondents are the only ones able to divert water between these points. This was admitted by appellants and was stipulated to by them at the trial (R. 14, 15, 16). Your attention is respectfully invited to the fact that during the major portion of the year—namely, approximately from September-October to April—all of the creek flow is diverted into the Murray Power Plant pipeline (R. 30, 45, 62, 70, 194). The State Engineer's records bear this out and, of course, Your Honorable Body can take judicial notice of such records.

It will be noted from the State Engineer's records and from the judgment of the trial court (R. 217) that the respondents are able to ascertain this additional water only during the period when all of the flow is diverted into the pipeline at the Whitmore Oxygen Plant (when the creek is dry, R. 45), or when the creek exceeds the decreed rights. This being true, how can the appellants complain of interference where no one else has right of diversion? During this period (R. 16, 45), the entire normal flow of water is diverted and a tight dam maintained at the Sandy Ditch (R. 81, 82, 84). Therefore, no one except the respondents is entitled to any water out of the creek during this period. Furthermore, Defendants' Exhibit No. 2 shows that during the above mentioned period, even with pumps going and with the natural seepage of the creek, the total decreed rights of the respondents and

Union and Jordan Irrigation Company (who shares a pipeline with respondents) cannot uniformly be delivered at the Sandy Ditch (R. 36, 45). It only stands to reason that if the respondents are interfering with anyone we are interfering with ourselves. However, it was conclusively shown by the evidence that during this period the respondents, through their pumping of the wells, could deliver more water at the Sandy Ditch than could be delivered there by natural means (Exhibit No. 2, R. 30, 31, 38, 41, 54, 141, 197, 211).

To permit us to prove on our application for appropriation of additional water certainly cannot be construed as legal sanction given us to take water from underground source by means of a pretext. Certainly the records show that additional water was captured (Exhibit No. 2, R. 30, 31, 34, 38, 41, 54, 62, 141, 161) and appellants do not attempt to refute such absolute evidence but quite on the contrary adduce only a theoretical geological lesson unsupported by data that proves absolutely nothing. Appellants' own witness testified that their evidence rested on theory and supposition (R. 176).

If the area in question is like a "big tub," as outlined by appellants, then water will be released only where holes are made, and if no holes are made in the tub, then the water will escape over the fault (R. 63, 205), and be lost in the valley below. This is admitted by appellants (R. 137, 141, 143, 147, 161, 162, 197). Why not tap it, bring it to the surface and save it? However, the watershed cannot be likened to a closed vessel, as set forth in the appellants' beaker experiment, because it has a porous opening over the fault and the old canyon creek channel to the south of the Beaver Pond

Springs, wherein water continuously escapes into the underground basin below. This is supported by Dr. Marsell's testimony (R. 134, 193).

POINT III.

THE RESPONDENTS HAVE SHOWN THAT THERE WAS UNDEVELOPED AND LOST WATER WITHIN THE AREA IN QUESTION.

The appellants seek to lay great emphasis upon the fact that the respondents have not traced the source from which the claimed water comes. The source of the water above the respondents' point of diversion is entirely immaterial in this case. It was held in *Warren Irrigation Company v. Charleton, et al.*, 58 Utah 113, 197 P. 1030, that it was no defense to plead that the water that the defendants were taking was water belonging to an appropriator whose rights were senior to the rights of the plaintiff, for the plaintiff would have been entitled to the water if the senior appropriator allowed it to run past his point of diversion. In this respect see also *Fuller, et al., v. Sharp, et al.*, 33 Utah 431, 94 P. 813. The only question before the court is whether or not there is unappropriated water at the location of the wells where we propose to divert it. The argument presented in the appellants' Point III is merely a repetition of the matters which have been presented by them in Points I and II. This argument has been answered in the respondents' previous points, or will be answered in subsequent discussions.

Appellants again cite cases pertaining to relative rights

of parties which have no bearing on the case at bar. We desire to point out that the case of *Silver King Con. Min. Co. v. Sutton*, cited by appellants on page 31 of their brief, is a quiet title suit case which is not the fact of this case. Respondents claim no other interest in adjudicated rights than what they already have; furthermore, the instant case is not a suit in equity as the above cited case relied upon by appellants. Citing from appellants' own case at page 684 of 39 P. 2d:

"This being a suit in equity it is our duty to examine the evidence, determine its weight and reach our own conclusion with respect thereto bearing in mind, however, the rule so often announced by this court that the findings of a trial court will not be disturbed unless we are of the opinion they are against the clear preponderance of the evidence."

In this respect, see also *Holman v. Christensen*, 73 Utah 389, 284 P. 457. Certainly after many years of exhaustive tests, approval by the State Engineer, and approval by the District Court, it cannot now be said that we have not met our burden.

POINT IV.

THE EVIDENCE CONCLUSIVELY SHOWS THAT THE WATER CAPTURED IS NOT OF FULLY APPROPRIATED SOURCES.

Appellants allege that the record does not support the Findings of the court and that the trial court has made certain conclusions. In such a suit, the District Court performs de novo the same functions as the State Engineer performs. The issues

to be tried are exactly the same as they were before the State Engineer. To this effect, see *Eardley v. Terry*, supra, wherein the court said:

"When an appeal is taken from the decision of the State Engineer in such a case, the trial court is required to determine the same questions de novo. * * * The issues remain the same upon an appeal to this court."

In determining whether or not an application should be approved, the issues are outlined by *Section 100-3-8, U.C.A., 1943*. This section provides:

"It shall be the duty of the State Engineer * * * to approve an application, if (1) there is unappropriated water in the proposed source; (2) the proposed use will not impair existing rights or interfere with the more beneficial use of the water; (3) the proposed plan is physically and economically feasible; (4) the applicant has the financial ability to complete the proposed works and the application was filed in good faith and not for purposes of speculation or monopoly."

Requirements numbers 3 and 4 do not appear to be at issue and therefore are not worthy of much comment. In passing, let us say that we have the physical and economical means to develop this proposed appropriation, the wells are already there, have been pumped for over 10 years, and measurements have been made over a long period of time. Certainly one cannot say that two small cities with growing pains have filed this application for speculation.

In determining whether there is unappropriated water, and whether the rights of others will be interfered with, the

Supreme Court has, on numerous occasions, defined the showing which must be made by the applicant. In one of the more recent opinions, *Whitmore v. Welch*, supra, the court said:

"Furthermore, our holdings are uniformly to the effect that if there is unappropriated water in the proposed source, an application to appropriate should not be rejected. In *Little Cottonwood Water Co. v. Kimball*, 76 Utah 243, 289 P 116, 118, we held that the state engineer should approve an application to appropriate water *unless* * * * it clearly appears that there is no unappropriated water in the proposed source * * * But if the question is fairly doubtful and there is reasonable probability that a portion of the waters are not necessary to supply existing rights the engineer should have the power to approve the application and afford the applicant the opportunity for an orderly recourse to the courts, who have the facilities and power to dispose of the matter definitely and satisfactorily."

" * * * since the policy of the law is to prevent waste and promote the largest beneficial use of water new appropriation (applications) should be favored and not hindered. In a doubtful case when the conclusion is not clear, it is more consistent with sound policy and with the general scheme of the law, to approve the application to appropriate and afford the new claimant the legal status and the opportunity to proceed * * * ."

The doctrine of this case was stated in *Rocky Ford Irrigation Co. v. Kents Lake Reservoir Co.*, supra, and reaffirmed again in *Lehi Irrigation Co. v. Jones, et al.*, 115 Utah 136, 202 P. 2d 892.

In the *Eardley v. Terry* case, supra, the court said:

"It seems clear to us that the Legislature intended that when the application is filed, the state engineer is called upon to determine preliminarily whether there is probable cause to believe that an application can be perfected, having due regard to whether there is unappropriated water available for appropriation, whether it can be put to a beneficial use, and whether it can be diverted and so used without injuring or conflicting with the prior rights of others. If he determines there is such probability, the application is approved and the applicant then proceeds to demonstrate by an actual use of the rights sought to be acquired that he is entitled to such rights."

The mere fact that an application, filed and literally followed through to proof, might place the applicant in a position where he could interfere with other prior rights, is not grounds for rejecting an application. See *Rocky Ford Irrigation Co. v. Kents Lake Reservoir Company*, supra, and *Whitmore v. Welch*, supra. In the *Whitmore* case, the court quoted Section 100-3-3 which in effect states that change applications shall not be rejected for the sole reason that the change might impair vested rights in others, etc. The court then says:

"If a change application must not be rejected merely because there might be some conflict with vested rights, it would seem to follow that an original application should not be rejected when there is unappropriated water and the only conflict is with the respect to the point of return."

It is not necessary at the application stage of the procedure to appropriate water for the applicant to know every detail of his final right. He may file on 2 second feet of water, not knowing whether he can appropriate anywhere near that much.

The application is approved, and he proceeds to demonstrate what can be appropriated without interfering with others. When his final proof is submitted, his certificate may issue for only 1 of the 2 feet applied for. In this respect, see *Salt Lake City, et al., v. Gardner, et al.*, 39 Utah 30, 114 P. 147. He also may find that particular diverting works are not adequate, that a well must be drilled deeper than contemplated, that a pipeline must be substituted for a natural channel or a dirt ditch. His application is never rejected simply because these details are unknown at the beginning. The application should be approved as filed, even though the State Engineer does not believe that the entire amount applied for can be perfected. Thus, in *Little Cottonwood v. Kimball*, *supra*, the court said that an application should be approved if there was "any unappropriated water in the proposed source." Also, in *Whitmore v. Welch*, *supra*, the court had before it a power filing. The applicant had asked for a large segment of the stream taking the water out at one point and returning it at another. If the application had to finally be approved for the exact quantity of water and exact segment of the stream applied for, it would have been necessary to reject it. This is so, because the point of return was so far downstream that it interfered with other upstream rights. The court, nevertheless, affirmed the State Engineer in approving the application, because upon final proof the water right could be cut down to cover only that which was available for appropriation. In the instant case, no upstream or downstream rights will be interfered with. This has been proven.

In *Eardley v. Terry*, *supra*, the court pointed out that the

application is not intended to be a final determination of the water right. The court, in this regard, said:

"Were Section 100-3-8, R. S. 1933, to be considered by itself, it might be thought that in determining whether an application to appropriate water should be approved or rejected, the state engineer, and the district court upon an appeal from the state engineer's decision, should proceed to hear and dispose of the matter and impose upon the applicant the same burdens as if it were making a final disposition of all questions growing out of the filing of the application. But section 100-3-8, *supra*, does not stand alone. Sections 100-3-16 and 100-3-17 must be considered in connection therewith. By those sections it is clear that no final rights are acquired until the proof required by section 100-3-16 is made and a certificate has been issued by the state engineer. Section 100-3-16 contemplates that the works, by which the water applied for is to be put to use, must be completed and the water applied for must be put to a beneficial use before a completed appropriation giving rights to the use of the water can be effected. It is also clear that the original approval of the state engineer has no efficacy except that it shows that the applicant had the right to proceed with his application."

There is sufficient evidence available to demonstrate beyond doubt that there is reasonable cause to believe that a water right can be perfected and this certainly is admitted by the appellants (R. 137, 141, 143, 147, 161, 162). Time for submitting proof of appropriation can be extended by the State Engineer for as much as 50 years from the date an application is approved, *Section 100-3-12, U.C.A. 1943, as amended.*

During the ensuing years, additional measurements and study can be made so as to know with almost mathematical exactness the quantity of water which can be developed through pumping, in addition to that which would have been available through natural conditions. The respondents, by their testimony and through the exhaustive experiments, have shown this in great detail.

The Supreme Court has for many years recognized that water which is wasted by nature is unappropriated, and that persons willing to construct the necessary works to save the water which nature wastes, may appropriate it. Cases going back as far as 1916 have recognized this principle. Thus, in *Big Cottonwood Tanner Ditch Company v. Shurtliff, et al.*, 49 Utah 569, 164 P. 856, the court said that where a user is wasting water due to a defective or wasteful method of conveyance, another user can improve his methods and himself use the water thus saved. See also *Salt Lake City, et al., v. Gardner, et al.*, *supra*.

In 1903 in the case of *Howcroft v. The Union Jordan Irrigation Company*, 25 Utah 311, 71 P. 487, the court said that a person who seeks to save water by piping it across a porous area must, in order to sustain his right to water saved, prove that said waters were actually lost to prior appropriators. To do this we can show that said waters would not run above the surface at a point above the prior appropriators' point of diversion. The evidence shows that the waters which are pumped from the wells would not reappear in the channel above the diversion point of the Sandy Ditch. This was admitted by appellants' own witness (R. 137, 141, 143, 147, 161). Without pumping

little water accumulates in the creek and reaches the Sandy Ditch, whereas actual careful measurements over periods of time show that there can be pumped at least 0.6 c.f.s. more than would reach the Sandy Ditch by natural means, (Defendants' Exhibit No. 2, R. 22-50) and at no time even by pumping could we dry up the creek channel completely (R. 38). Thus by allowing the water to stay in the underground, it is not possible to get all of it. A considerable part of it is lost over the fault area. Much of it simply will not come to the surface. Existing wells and pumping equipment can, however, greatly increase the quantity of water which can be brought to the surface above the Sandy Ditch (R. 22-50, 54, 141, 147, 211). If the diversion works at the Sandy Ditch are interfered with in any way, the matter can be amply handled by replacement.

Salt Lake City has already gone on record before the State Engineer as believing that immediately above this area—between the Whitmore Oxygen Plant and the South Despain Ditch—as much as 3 c.f.s. is lost in the channel and can be saved (Defendants' Exhibit No. 9). It has also gone on record by its applications that immediately below the Sandy Ditch over 3 c.f.s. sinks into the channel and never again reappears in the surface stream above the point of diversion. It apparently denies that the immediate strip loses any water. The evidence very emphatically demonstrates that it does; that by pumping these underground sources through development of wells, water which would not otherwise be available for use by anyone is brought to the surface and can be place to beneficial use. We respectfully call your attention to Defendants' Exhibits 10, 11, 12, 13, and 14. An analysis of these exhibits indicates

the very inconsistent policy taken by appellant, Salt Lake City. Exhibits 10-13, inclusive, are answers to protests received when Salt Lake City filed to appropriate 3 c.f.s. (Defendants' Exhibit No. 9) between the Whitmore Oxygen Plant and the South Despain Ditch. The appellant, Salt Lake City, in answer to the protests of Little Cottonwood Water Company and Union and Jordan Irrigation Company (Defendants' Exhibits 10-12, inclusive), said:

"That the water feeding the springs and seeps which supplies part of the primary flow of the creek, is not the same water that is sought to be appropriated under this application. This fact is evident because the water from said springs is much colder than the creek water during the summertime and flow from said springs and seeps is practically constant while that of the creek varies with the result that the loss in the channel varies without affecting the springs; furthermore, the amounts of water flowing from said spring and seeps is much more than that lost in the streambed which further substantiates the fact that these waters are unrelated."

Salt Lake City, in answer to the protest of Sandy City, Midvale City, and the Sandy Irrigation Company (Defendants' Exhibit 13), said:

"That the applicant (meaning Salt Lake City) hereby claims that the water which issues in the form of springs below the point of diversion of the South Despain Ditch (meaning Despain Springs) is not the same water that is lost in the channel outlined in the application, but claims that these springs, which unquestionably contribute to the primary flow of said creek, are fed by water from other sources. That this fact is substantiated by residents in the vicinity of

these springs and further by the fact that the flow from said springs is comparatively steady while the stream flow fluctuates; furthermore, during the summertime, the water from the springs is colder than that of the creek and the flow from the springs is much more than that of the seepage loss, which tends to further substantiate the claim that these waters are unrelated." (Italics added.)

Yet Salt Lake City, in their protest against the respondents' application (Defendants' Exhibit No. 8), said:

"That the protestant (meaning Salt Lake City) maintains and believes that some of the said water now being lost by seepage is the same water that applicant proposes to pump from wells under this new application." (Italics added.)

To say the least, these positions taken by the appellant, Salt Lake City, are certainly diametrically opposed. Are we to be so naive as to believe that the appellants can save 3 c.f.s. between the Whitmore Oxygen Plant and the South Despain Ditch and can save below the Sandy Ditch and yet that there is no additional water to be captured between the South Despain Ditch and the Sandy Ditch? Most certainly not.

It is only necessary, under the cases noted above, for the applicant to show that there is reasonable ground for believing that an appropriation can be made. Cases where persons saved waters wasted are *Little Cottonwood Water Co. v. Kimball*, supra, and *Yates v. Newton*, 59 Utah 105, 202 P. 208. In the Newton case, it appeared that plaintiffs diverted all of the water from a canyon or creek which had a gravelly bed and the plaintiffs argued that the evidence showed that there was no water

running to waste in the canyon. The argument was that any effort on the part of the defendant to conserve or gather waters which seep into the gravelly bed of the stream would interfere with the rights of the plaintiffs. The court held that only by experimenting could it be determined whether or not water could be conserved and if the defendants wanted to try to conserve the water they were entitled to do so.

Appellants, at page 34 of their brief, allege that no evidence was adduced to show where the additional water came from and also allege that the water captured by respondents would reappear in the channel at the Sandy Ditch, a distance of 6400 feet. A check of Defendants' Exhibit No. 1 will show this distance to be not over 5,000 feet. It is very evident from respondents' Exhibit No. 2 and testimony given by Mr. Richards, Mr. Ward and by appellants' own witness, Dr. Marsell (R. 22-50, 62, 63, 137, 141, 143, 147, 161, 162) that the water captured is water that would escape into the valley west of the fault area if not taken out above, and therefore it was impossible for the water captured to be part of the water that might appear at the Sandy Ditch. Furthermore, we definitely showed that the water taken was the escaping water because the voids and spring area were recharged almost immediately (R. 40, 49, 161, 190), and therefore were not necessary for surface carrier water.

Exception is taken to the statement by appellants (appellants' brief, page 35) that the pumping adversely affected the water supply reaching the Sandy Ditch. This statement is absolutely false and an analysis of Defendants' Exhibit No. 2 will emphatically refute such contention. More water was de-

livered at the Sandy Ditch at all times when the pumps were operating than when they were not.

The appellants attack the validity of tests made by engineers for the respondents. These tests were made by Mr. Richards, who has dealt primarily with water and water courses and has been very familiar with water conditions in Little Cottonwood Canyon for the past 50 years (R. 17, 18, 19), and under the supervision of Mr. Ward, who has studied and worked with water in the State of Utah for over 20 years, a large part of which work has been conducted in Little Cottonwood Canyon (R. 60, 201). Appellants rely heavily on the testimony concerning the peg test conducted under the supervision of Dr. Marsell. Let us look at this test for a moment. You have the true facts that *all* of the surface flow is being diverted through the pipeline and the only water which is in the creek from the Whitmore Oxygen Plant to the Sandy Ditch is a minute amount that seeps or percolates therein, and the fact that no one else but the respondents can divert water between these two points. Further, you have the fact that pumping and exhaustive experiments, by the respondents, took place during months when no water was in the creek. What more ideal situation could exist (R. 30, 70)? During the winter months there is a normal seasonal fluctuation wherein the surface beds will normally dry up. The evidence adduced by the respondents very emphatically showed that the recovery rate of the well voids and seepage was almost instantaneous (R. 40, 47, 48, 149) and this was not refuted but acquiesced in (R. 129, 132, 141, 156, 190), thereby indicating the capture of water that never would come to the surface. Exhaustive tests were made by respondents, which included

the entire area from the wells to the Sandy Ditch (Defendants' Exhibit No. 2). Tests were made over many years (R. 38, 49, 61) with one well pumping, then two wells pumping. Many weirs were installed, results were charted and measurements taken between given points (R. 22-50). All of this was done at great expense to the respondent (R. 202). All the appellants did was to place pegs a few inches in the streambed around the wells. No other measurements of any kind were shown. This is evidenced by the testimony of Dr. Marsell (R. 138, 171, 193, 194, 195). No measurements or tests were made by the appellants to refute the tests of the respondents. No measurements were taken of the flow over the various weirs all down the creek to the Sandy Ditch. Then how can appellants, in good conscience, say that the respondents' tests are of no value? Admission was made by Dr. Marsell that recovery of the voids created by pumping was very rapid when the pumps stopped and the only exception that could possibly be taken is that some of the pegs were not re-covered with water. We, of course, submit that this condition was a normal seasonal fluctuation. The seepage of the creek bed is not the same daily throughout the year and the water in the creek normally goes down during the time when the appellants made their tests (R. 27, 33, 34, 35, 49, 62, 138, 156, 206). How can anyone say that the underground water moves at a rate of 2 feet per day without more tests? Can anyone see it? Is the source of supply in any given area the same 200 feet away? How can anyone say that the subsurface material is the same all over within a given area? One need only look at Defendants' Exhibit No. 1 and R. 190 to see that this is not true. There is a rocky bed approximately 900 feet in length

just a short distance west of the Despain Spring Area which is of different formation than the Spring Area and the rest of the area. This area has an actual loss of water (R. 42). Also, there are natural losses and fluctuations all down the creek (R. 43). By way of comparison, appellants' testimony revealed no facts that were not explained and plainly illustrated by respondents' exhibits which were the results of careful and accurate measurements of the flow of creek water above and across the Wasatch Fault area. Except for some observations and measurements of the elevation of water surfaces as they appeared in one shallow well immersed in a corrugated pipe, and in a few places along the creek where water accumulated and ran down the channel and in some spots ponded up to a depth of about one foot, the appellants produced no factual evidence that is helpful in determining the actual amount of water that Little Cottonwood Creek does or can yield under various conditions. A very interesting theory of prehistoric water erosion and glacial action in the canyon, and even other canyons, was given stating that below the present streambed from the Whitmore Oxygen Plant to the Wasatch Fault there now exists a deep glacial and water deposit of material, *estimated* to be 200 to 300 feet deep, and that this body of material rests on bedrock; that during the time when there is enough water flowing in the creek to entirely saturate or fill the voids in this great mass of material up to the level of the creek bed the water will appear in the creek channel; that the Murray Power Plant Dam is constructed on top of this uncompacted material of great depth, and an unknown amount of water is running under it tending to fill the voids in the deposit between there and the Wasatch

Fault; that the ground water surface produced by this subsurface flow is practically parallel to and slightly below the bottom of the creek when all of the water flow in the creek at the Murray Plant pipeline is diverted therefrom; that the hydraulic grade of this ground water surface outcrops at the Despain Springs area and against the Beaver Pond Springs and that all the subsurface water which does not appear at these points disappears into the Wasatch Fault.

This is of course an interesting description of an undemonstrated condition. Appellants' main witness testified that no other tests were made than the peg tests (R. 171, 193, 194). No sample of the earth, no evidence of the depth of the bedrock is produced. No evidence was produced as to the depth of the canyon fill, the actual amount of water flowing beneath the surface of the ground, the nature of water movement, or the portion of the water flowing underground which appears at the surface in the above mentioned spring area. Whether these spring areas yield 10% of the underground flow or 90% of the underground flow, we are not informed. Without more evidence than these hypotheses it would appear difficult for the court to determine that the State Engineer's Office and the other respondents, after many years of study of the problem as it actually occurs on the ground, and the trial court after hearing the evidence, have erred in deciding that there is a reasonable cause to believe that there is some unappropriated water in the underground source.

No evidence has been produced that the Midvale and Sandy wells are not drilled to bed rock or that at any point across the canyon the bed rock is much deeper than these

wells. This same course of reasoning is applicable to any and all points up and down the canyon until evidence to the contrary is produced. If there is a deep deposit of material in the canyon and a great body of water passing through it, it is possible that a considerable portion of this water is following along the bed rock and disappears in the fault area. In that case, from a conservation standpoint, it should be brought to the surface at a higher elevation than the bottom of the valley and put to use. Upon this theory the wells were drilled and more water has been made to flow by use of the pumps than otherwise would. The additional water thereby obtained is intended to be used by the respondents for the highest duty to which water can be put, namely, culinary use. This has been demonstrated during the past 10 years (R. 38, 49, 62), and the State Engineer has required very much more proof than it normally does for the approval of an application, as evidenced by Mr. Ward's statement (R. 62). The respondents have been patient in asking for its use while appellants continue to use the water we have pumped pending said approval. At the present time, the respondents are in great need of the additional water and they desire to continue their proof of appropriation. Certainly, we have met the burden for an approval of the application at this stage.

POINT V.

EXHAUSTIVE AND PRACTICAL QUANTITY TESTS
OVER A PERIOD OF TIME, THE RESULTS OF WHICH
CONCLUSIVELY SHOW UNAPPROPRIATED WATER,

ARE SUFFICIENT TO WARRANT THE APPROVAL OF AN APPLICATION TO APPROPRIATE WATER.

An analysis of appellants' Point V shows that the appellants in this point, like in every one of their other four points, argue on the premise that this lawsuit involves the determination of relative rights rather than whether or not there is reasonable cause to believe that there is unappropriated water within the area. They have drawn unfair inferences and conclusions not based upon the facts and evidence.

Appellants assail the findings and the judgment of the trial court and its reasoning in affirming the State Engineer's decision. In reply to such a ridiculous attack, we refer to the last two paragraphs of the trial court's memorandum decision, as follows:

"The courts of this state have consistently held that original applications for appropriation of water should be freely granted whenever a reasonable probability exists that further development of water resources can be made. The public policy of the State being such, the views of the court as expressed herein must be interpreted accordingly."

"Let judgment be entered in accord with the decision of the State Engineer."

In attacking the judgment of the trial court the appellants have destroyed their own major premise. As previously pointed out, the entire argument of the appellants is based on the contention that all of the water in Little Cottonwood Creek, including all water occurring in the watershed to its uttermost limits, is appropriated under the terms of the Morse

Decree. In appellants' brief, at page 39, they say, "We have no doubt that if wells were dug at or immediately above the fault they could capture some water that had fully performed its service to prior appropriators up the creek and so could be taken without injury to anyone."

If this be true, then such water is unappropriated water within the confines of Little Cottonwood watershed.

The evidence clearly shows that during the period when the tests were made, the area was not acting as a carrier of surface water. The only water in the creek channel was a small part of the underflow which reached the surface and which belonged entirely to the respondents. Appellants had diverted all of their water above the springs. By the same reasoning then, this water, which no longer acts as a carrier, is unappropriated water.

The appellants ask who is capable of measuring the contribution of water to the underflow of the stream. Our answer is that we, through exhaustive tests, over a period of many years, under the supervision of competent hydraulic engineers, have measured it. The results of our measurements are in evidence. Also, we have made it possible for the appellants to measure it. All of the tests show that, upon cessation of pumping, while the creek above is still dry, water appears in the springs within a few minutes and covers the surface of the area in lengths of time ranging from 4 hours to 8 days. The appellants insist that water cannot appear at the surface until the underlying material is completely saturated. The various exhibits of both parties show exact measurements as to time. As far as quantity is concerned, we have made precise measure-

ments of the quantity of water which can be taken from the area by our present means. This evidence is clear and uncontroverted.

Most of these matters are not at issue in considering an application to appropriate water. Our proof has gone much further than the law requires. These detailed measurements properly relate to proof of appropriation.

All witnesses agree that there is water crossing the Wasatch Fault and excess flood water in the area which is unappropriated. The respondents have drilled wells and made careful scientific examinations for many years. They have found that they can develop and place to beneficial use a measured quantity of water. No interference has been shown. This, then, is the development which the appellants after examination limited in scope and area, covering a period of 75 days, label as an "impractical scheme."

We have not only borne the burden of proof, but have gone far beyond to inform the court fully. Upon the basis of the appellants' evidence alone, the application should be granted.

CONCLUSION

The tests performed by the respondents under the direction of the State Engineer were exhaustive, were more than required by the usual applicant, were performed during the most ideal period possible, and were performed in an area where no other appropriator, except one not a party to this

suit, has any diversion points. This is indicative that if any interference takes place, it is with ourselves. A tight dam is maintained at the Sandy Ditch during this period which is indicative that no interference could possibly be made with either an appropriator above the South Despain Ditch or below the Sandy Ditch. There is a natural loss of water within the tested area, as is evidenced by the loss in the 900 foot rocky formation just west of the Despain Spring Area. The rate of recharge to the Despain Spring Area was almost immediate with the stopping of the pumps, all of which took place when the entire creek flow was diverted east of the area in question.

It is, therefore, submitted that applicants need only show reasonable cause for believing that an appropriation might be made, that it is not necessary for them to prove that the exact amount applied for can be obtained, nor to know every detail of the appropriation. Those details will be known by the time proof of appropriation is submitted. The application is simply a notice of intention. If approved, as it should be, the applicant is permitted to go forward to perfect a right. The application should not be rejected merely because they might be placed in a position where they can interfere with rights of others, which we deny will take place. The evidence clearly demonstrates that nature will not bring all of the water accumulating in the areas in question to the surface. This is admitted by the appellants. Both above and below this area the protestants are attempting to work out projects to save the water which nature wastes. By extensive development works in the form of wells and pumps, some water can be brought to the surface which otherwise would remain underground and not be available at any of the protestants' points of diversion.

Under the cases and the evidence, the State Engineer's and the Trial Court's decision should be readily affirmed and the applicants permitted to proceed to perfect their rights.

We apologize to this Court for what the Court may well regard as a too lengthy brief with unnecessary repetitions and citations. Our excuse is that the several points advanced by the appellants to sustain their position are, at least in part, the cause of supererogation in dealing with them.

Respectfully submitted,

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