Feasibility of Piping the Duke Ditch

Sponsored by the

The Duke Ditch Company

January 2016

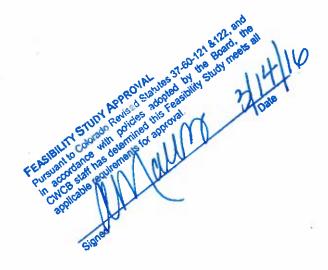


Table of Contents

Introduction (Need for the Project)	6
Project Sponsor	6
Project Service Area and Facilities	6
Hydrology and Water Rights	6
Project Description and Alternatives	9
Selected Alternative	9
Cost Estimate	9
Implementation Schedule	10
Permitting	10
Institutional Considerations	10
Financial Analysis	10
Credit Worthiness	11
Alternative Financing Considerations	11
Collateral	12
Economic Analysis	12
Social and Physical Impacts	12
Conclusions	. 12

List of Appendices

Appendix A:

Articles of Incorporation and By-Laws.

Appendix B:

Water Rights Summary &

State Engineer Diversion Reports

Appendix C:

NRCS Preliminary Design Report

Appendix D:

Shareholders & Irrigated Parcels

Financial Statements: 2013 - 2015

Appendix E:

Economic Analysis

Appendix F:

CWCB Loan Application

The Duke Ditch Company

John Hotchkiss President

Scott Kolb Secretary/Treasurer

Marley Duclo Project Manager

Engineering and Technical Support

Shana Harness, NRCS Soil Conservationist Robert Gallegos, NRCS Agricultural Engineer Beth Karberg, Colorado Dept. of Agriculture

> USDA Delta Field Office 690 Industrial Blvd Delta, CO 81416 (970) 874-5726

Acknowledgement of those who assisted in the preparation of this report:

Beth Karberg

Lower Gunnison Salinity Coordinator Colorado Department of Agriculture

Marley Duclo

Project Manager, Duke Ditch Company

Shana Harness

Soil Conservationist, NRCS Delta Field Office

Feasibility Study of The Duke Ditch Company Pipeline Project

Introduction

The Duke Ditch Company, located in Delta County, operates the Duke Ditch for the benefit of the shareholders by providing direct flow irrigation water. The ditch diverts from Leroux Creek and Barrow Gulch, just west of the Town of Hotchkiss, and delivers water through the Company's ditch to the 380-acre service area. The earthen ditch traverses a steep hillside in the Leroux Creek canyon where it is prone to wash out, is subject to significant seepage and evaporative losses, as well as regular maintenance and aquatic vegetation growth issues. The deep percolation from irrigation water in this area contributes salinity and selenium to the Colorado River system. Piping this ditch will therefore have both local and regional benefits.

Project Sponsor

The Duke Ditch Company is a mutual ditch company and a non-profit corporation registered in the State of Colorado. There are 11 shareholders and 80 shares of stock. The Duke Ditch Company has the power to set annual assessments to be paid by the shareholders, the power to cut off water deliveries to shareholders that fail to pay their assessments, and the power to offer stock for sale to pay back assessments. The Duke Ditch Company Articles of Incorporation and By-laws are included in Appendix A.

Project Service Area and Facilities

The Duke Ditch provides irrigation water to a 380-acre service area in Delta County. The diversion for the Duke Ditch is located west of the Town of Hotchkiss, on Leroux Creek. The ditch extends southeast approximately 2.7 miles. Irrigated acreage of approximately 290 acres within the service area is primarily used for sheep grazing and hay production. The Willow Heights neighborhood is also served by the Duke Ditch to supply outdoor irrigation water for gardens and lawns. A map of the Duke Ditch including irrigated area served is included in Appendix A.

Hydrology and Water Rights

The source of water for the Duke Ditch is direct flow water rights out of Leroux Creek and Barrow Gulch. The water rights diverted by the Duke Ditch consist of 3 rights all with an 1892 date of appropriation, and totaling 10 cfs. Records of the State Engineer's Office indicate that total average annual diversions are 2,424 acre-feet, based on record years 1970 through 2014 for Leroux Creek diversions and 2006 through 2014 for Barrow Gulch diversion. The maximum diversion rate was 12 cfs at Leroux Creek and 5 cfs at Barrow Gulch. A summary of water rights and the State Engineer Diversion records are found in Appendix B.

The Duke Ditch Hotchkiss, CO



Headgate at Leroux Creek

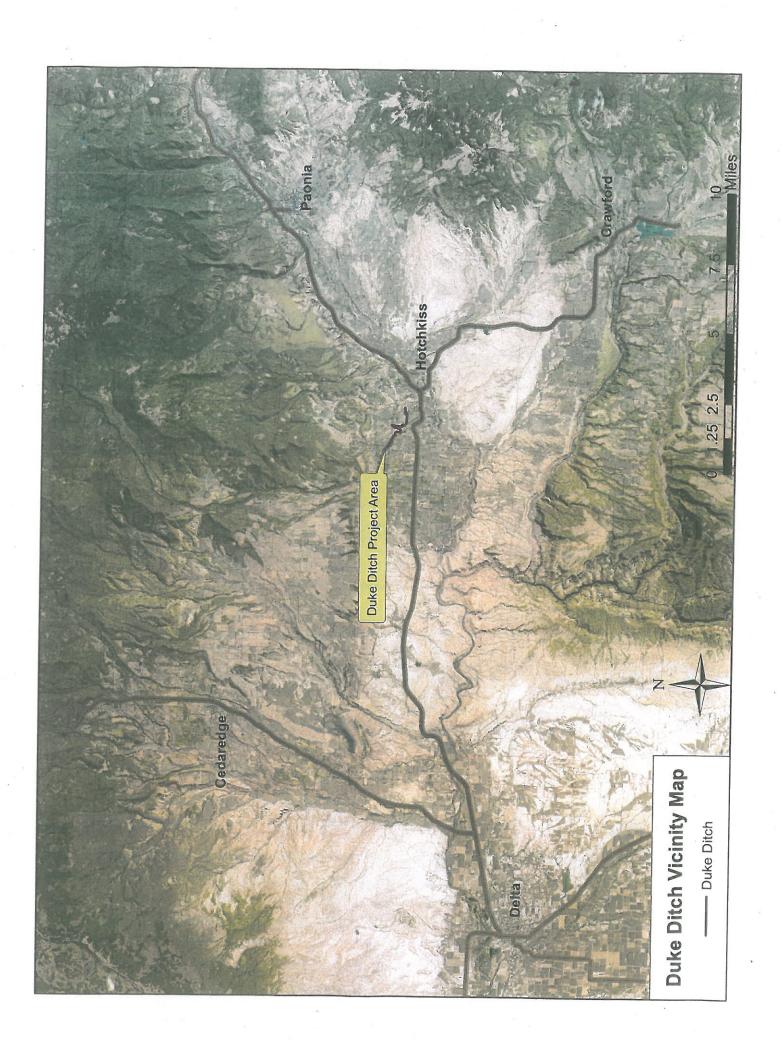


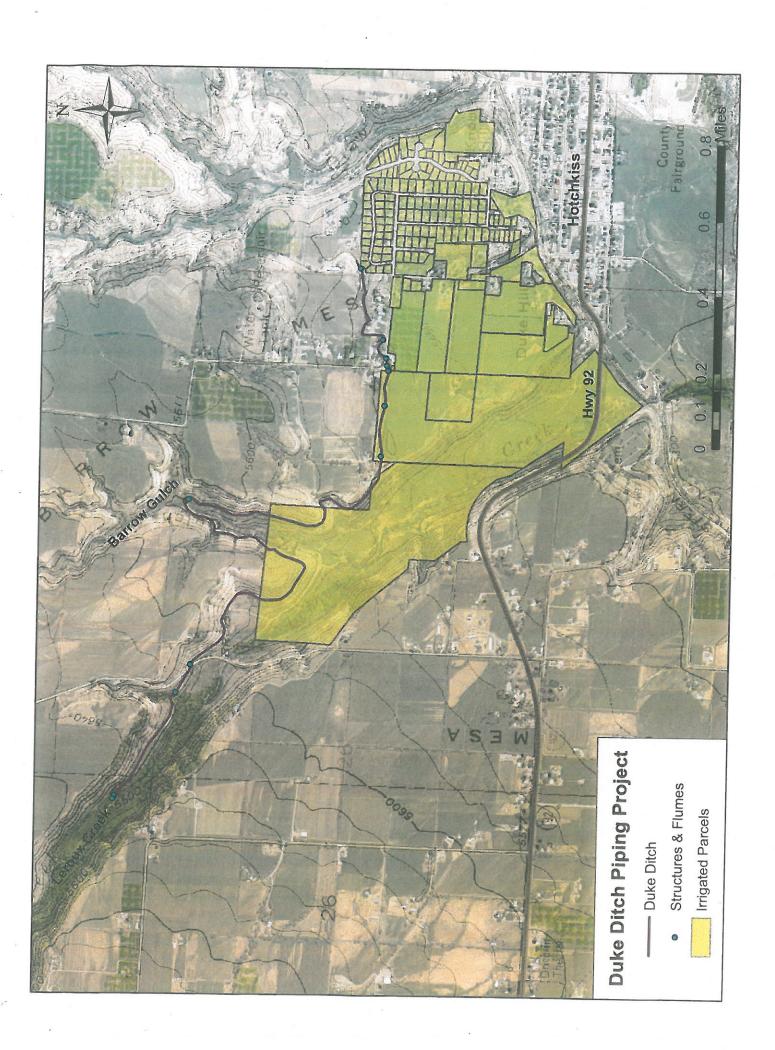
Hay ground irrigated by the Duke Ditch



Upper Ditch w/ abundant cress







Project Description and Alternatives

The purpose of this project is to reduce maintenance and seepage and evaporation losses from the Duke Ditch. Three alternatives were considered:

- 1. The no-action alternative,
- 2. Pipe the ditch with High Density Polyethylene pipe,
- 3. Pipe the ditch with gasketed PVC pipe.

Alternative No. 1 was considered undesirable since it does not meet the Duke Ditch Company's goals of reducing the risk of ditch washouts requiring emergency repairs such as occurred in 2010, reducing maintenance costs of over \$4000 for annual ditch cleaning and aquatic weed control, and removing 395 tons/year of salt contribution to the Colorado River system.

Alternative No. 2 was ruled out by both the NRCS and Duke Ditch board due to higher cost and limited options for local contractors. 24" HDPE cost of \$57/LF compared to 24" PVC cost of \$20/LF.

Alternative No. 3 was selected, since it is considered to be the lower cost approach, uses materials familiar to local contractors, reduces salinity to the Colorado River, provides reduced annual maintenance, eliminates seepage and evaporative losses, and greatly improves the reliability of the irrigation delivery system.

The selected alternative, Alternative No. 3, will pipe the 2.7 mile length of the Duke Ditch with 24", 21" and 18" PVC piping. Existing structures, including 4 inlet structures and 4 outlet division structures, will be replaced. Thus, this project replaces an aging, open ditch with a modern piped delivery system. The rock diversion from Leroux Creek is not addressed by this project.

The Delta County Office of the Natural Resources Conservation Service (NRCS) has prepared preliminary engineering designs and cost incentives for the project. The NRCS Preliminary Design report is included in Appendix C. Design drawings will be prepared by NRCS engineering staff once funding for the entire project is secured. Construction is anticipated to begin in the Fall of 2016.

The total estimated cost of the completed project is \$754,857. The cost breakdown is summarized in Table 1.

Table 1. THE DUKE Ditch Company Pipeline Project - Cost Estimate

Item		Quantity	Unit	Unit Cost	To	otal Cost
PVC Schedule 80 Pipe	37				\$	220,572
Fittings				2.1		39,371
3" Air/Vacs		17	each	55		935
3" Gate Valve		1	each	143		143
8" Canal Gates		10	each	600		4,800
Select Fill		6300	Cu yds	5		31,500
Excavation		13,600	LF	18.00		244,800
Structures, construction	4			*		40,130
Structures, concrete		36	Cu yds	155		5,587
24" Parshall flume		1	each	2,450		2,450
18" Parshall flume		1	each	1,900		1,900
Fence removal & replacement		200	LF	7.00		1,400
Final grading & seeding		13,600	LF .			1000
Construction contingency		1		10%		59,359
Construction	Costs				\$	653,947
NRCS Design	(8%)					47,487
NRCS NEPA	(4%)					23,744
NRCS Habitat Replacement	(5%)					29,679
Total Project	t Cost				\$	754,857

Implementation Schedule

The NRCS is expected to complete the final design by August 2016. Construction is expected to begin in October 2016 and to be completed by April 2017.

Permitting

All easements and rights of way have been secured. The Company expects to be exempt from 404 permitting by statutory exemption, 33 CFR Section 323.4(a) 3. This exemption will be confirmed with the Army Corps of Engineers. No streambed activities are planned in the construction of this project.

Institutional Considerations

Entities that are, or may be, involved in the design, construction, and financing of the project include:

The Duke Ditch Company - financing and project management; Natural Resources Conservation Service (NRCS) - design and construction oversight; Basin States Program through Delta Conservation District – primary financing; Colorado Water Conservation Board (CWCB) – supplemental financing. The Duke Ditch will be the lead entity for the financing and construction of the project and will be entering into contracts and agreements with the various entities for the services provided by each. The NRCS Delta Field Office will provide the final design, NEPA compliance and habitat replacement services as well as construction oversight.

Financial Analysis

Several entities will be involved in financing the estimated total project cost of \$754,857. The Duke Ditch Company is applying for a loan from the CWCB in maximum amount of \$90,000. The actual or estimated amounts by entity are given in Table 2.

Table 2. Sources of Funding

Entity	Grant	Loan	Percent Participation
Basin States Program	\$ 464,000		61 %
NRCS Technical Assistance	100,910		13 %
WRSA-Gunnison Basin	50,000	70	7 %
WRSA-State fund	50,000		7 %
CWCB – Water Project Loan		\$ 90,000	12 %
Totals	\$ 664,910	\$ 90,000	100 %

An application for financial assistance to pipe the Duke Ditch was filed with the Delta NRCS office in March of 2013. As a project of an incorporated ditch company, this application was not eligible for NRCS-EQIP program and was therefore referred to the Basin States Salinity Control Program funded by the Bureau of Reclamation, implemented by the local NRCS office. Thus NRCS services of project design, NEPA compliance and wildlife habitat replacement are listed as in-kind contributions. Funding for this project was awarded in August 2015. Contracting will occur when the Duke Ditch Company secures the remaining funds required to complete the project. BSP funds are dispersed throughout project implementation as completion of construction tasks are certified by NRCS technical staff and invoices are submitted to the Delta Conservation District. The Basin States Program is financially administered by the salinity area conservation districts as agents for the Colorado State Conservation Board.

The \$464,000 in funds awarded by the Basin States Program requires completion of the entire project, partial completion is not an option.

The Duke Ditch Company is requesting a 30-year loan from the CWCB. The standard agricultural lending rate would be 1.85 %, resulting in annual payments of \$3980. To this annual principal and interested payment, an additional \$398 per year is added for the first 10 years to fund the emergency reserve account, for a total annual cost of \$4378. The Duke Ditch Company will cover any costs that exceed the estimated project cost.

Table 3 is a summary of the financial aspects of the project. Annual assessments will remain at \$100 per share, as the projected loan payment is offset by annual maintenance cost savings.

Table 3. Financial Summary

Project Cost	\$ 754,857
Loan Amount (12% of Project Cost)	\$ 90,000
CWCB Loan Payment, including 10% loan reserve	\$ 4,378
Number of Shareholders	11
Number of Shares of Stock	80
Current Assessment per Share	\$ 100
Future Assessment per Share	\$ 100
Annual Loan Cost per acre-foot (Average annual diversions: 2424 acre-feet)	\$ 1.81

Since all other funding for the project is in the form of grants, the Company would have no other debt service on this project. For this analysis, annual ditch maintenance of clearing the head gate and ditch rider fees are expected to continue. Annual backhoe ditch clearing and chemicals for aquatic weed control will no longer be needed once the ditch is completely piped.

Credit worthiness: The Duke Ditch has no existing debt. Table 4 shows the Financial Ratios for The Duke Ditch Company, and indicates average to strong ability to repay this loan.

Table 4. Financial Ratios

Financial Ratio	Without the	project	With the	e project
Operating Ratio (revenue/expense)	149%	(strong)	107%	(average)
Debit Service Coverage Ratio (revenues-expenses)/debt service	No debt	(strong)	112%	(average)
Cash Reserves to Current Expense	150%	(strong)	152%	(strong)
Annual Cost per acre-foot (2,424 acre-feet diverted.)	\$ 3.09	(strong)	\$ 3.06	(strong)

Alternative financing considerations: The Duke Ditch Company has investigated alternative financing sources. They have obtained an in-kind grant from the NRCS for engineering design and construction inspection, NEPA compliance and wildlife habitat replacement. The Duke Ditch Company has also obtained approximately \$464,000 in cost incentive (grant) from the Basin States Program to cover 61% of the construction costs.

Collateral: As security for the CWCB loan The Duke Ditch Company can pledge assessment income and the project itself.

Economic Analysis

The economic benefit of the project is estimated to be \$123K per year, largely attributed to the benefits of salinity reduction by eliminating deep percolation from the ditch. A benefits to the Colorado River for salinity control of \$300/ton was used for this analysis. Maintenance costs will also be reduced. Considering total project costs, a project life of 50 years, and the 2015 Federal project amortization of 3.375%, the project benefit to cost ratio is 4:1. Considering only the State funds requested from WSRA grants and CWCB Water Project Loan, the benefit to state cost ration is 15:1.

Social and Physical Impacts

The project will have minor *social impacts* as the existing open ditch is replaced with a buried pipeline. Wildlife habitat replacement responsibility is carried by the NRCS. The pipeline will eliminate the maintenance necessary to clear debris and vegetation from the ditch, as well as prevent potential wash out areas, thereby assuring the continued operation of an existing irrigation system. The project will have minor physical impacts, once construction is complete. The new pipeline will follow the line of the existing ditch.

Conclusions

- 1. The Duke Ditch Company is an incorporated entity in the State of Colorado with the ability to enter into a contract with the CWCB for the purpose of obtaining a Construction Fund loan.
- 2. Rights-of Way easements are adequate for the construction of this project.
- 3. The project would provide improved efficiency and reliability in the delivery of irrigation water to shareholders, as well as providing water quality benefits to the Gunnison and Colorado Rivers.
- 4. The total estimated cost of the project is \$754,857 and will be financed by a Basin States Program salinity control grant, in-kind services from the NRCS, grants from the Gunnison Basin and State WSRA funds, and a loan from the CWCB Water Project fund.
- 5. The project is technically and financially feasible.

Appendix A

Articles of Incorporation By-Laws

ARTICLES OF INCORPORATION

OF

THE DUKE DITCH COMPANY

The undersigned, acting as incorporator of a corporation under the Colorado Non-Profit Corporation Act, hereby adopts the Articles of Incorporation for such corporation.

ARTICLE I

The name of this Corporation shall be THE DUKE DITCH COMPANY.

ARTICLE II

- A. The address of the initial registered office of the Corporation is: 484 Duke Hill Road, Hotchkiss, Colorado, 81419. 503 N. 2nd Po.Gox 488
- B. The name of its initial registered agent at such address is: Jimmy Hopper. Scott Kolb

ARTICLE III

The Corporation shall have perpetual existence.

ARTICLE IV

This Corporation is one which does not contemplate pecuniary gain or profit to the members thereof, and is organized and shall be operated solely for non-profit purposes. Provided, however, that members may be paid reasonable compensation and expenses for services actually rendered to the Corporation.

The specified purposes for which this Corporation is formed are to provide for ownership, maintenance, and preservation of water rights, ditch, and ditch rights described as:

A rwling as of 2/9/90 describing

the Dake Ditch rights in heroux like

and any additions thereto as may hereafter be brought within
the jurisdiction of this Corporation for this purpose to:

(a) fix, levy, collect, and enforce payment by any
lawful means, all charges or assessments pursuant to the
terms of the By-Laws, to pay all expenses in connection
therewith and all office and other expenses incident to
the conduct of the business of the Corporation,
including all licenses, taxes or governmental charges
levied or imposed against the property of the Corporation.

(b) acquire (by gift, purchase, or otherwise), own, hold, improve, build upon, operate, maintain, convey, sell, lease, transfer, dedicate for public use or otherwise dispose of real or personal property in connection with the affairs of the Corporation.

2.50 C.f.s. decreed from Batsow Gulch to D.D.C.

A Also

- (c) borrow money, and with the assent of two-thirds (2/3) of the shareholders, mortgage, pledge, deed of trust, or hypothecate any or all of its real or personal property as security for money borrowed or debts incurred;
- (d) dedicate, sell or transfer all or part of the property to any public agency, authority, or utility for such purposes and subject to such conditions as may be agreed upon by the shareholders. No such dedication or transfer shall be effective unless an instrument has been signed by two-thirds of the shareholders, agreeing to such dedication, sale or transfer;
- (e) have and to exercise any and all powers, rights and privileges which a corporation organized under the Non-Profit Corporation Law of the State of Colorado by law may now or hereafter have or exercise.

ARTICLE V

MEMBERSHIP

Every person or entity who is a record owner of a fee or undivided interest in any share which is subject by record to assessment by the Corporation, including contract sellers, shall be a member of the Corporation. The foregoing is not intended to include persons or entities who hold an interest merely as security for the performance of an obligation. Membership shall be appurtenant to and may not be separated from ownership of any share which is subject to assessment by the Corporation.

ARTICLE VI

VOTING RIGHTS

The Corporation shall have one class of voting membership:

Voting members shall be all owners of shares in The Duke Ditch Company, and shall be entitled to one vote

ARTICLE VII

BOARD OF DIRECTORS

The affairs of this corporation shall be managed by a board of three (3) Directors, who shall be shareholders of the Corporation. The number of directors may be changed by amendment of the By-Laws of the Corporation. The names and addresses of the persons who are to act in the capacity of directors until the selection of their successors are:

ADDRESS

John Hotchkiss 1027 3400 Roll Bix 479 Hotchkiss Co 81419

John R. Neill 735 ASTEN LIME HOTCHKISS CO. 81419

Jimmy Hopper 484 Duke Hill Road, Hotchkiss, Co. 81419

At the first annual meeting the members shall elect three (3) directors for a term of one year, and at each annual meeting thereafter the members shall elect three (3) directors for a term of one year.

ARTICLE VIII

DISSOLUTION

The Corporation may be dissolved with the assent given in writing and signed by not less than two-thirds (2/3) of the members. Upon dissolution of the Corporation, other than incident to a merger or consolidation, the assets of the Corporation shall be dedicated to an appropriate public agency to be used for purposes similar to those for which this Corporation was created. In the event that such dedication is refused acceptance, such assets shall be granted, conveyed, and assigned to any Non-Profit corporation, association, trust or other organization to be devoted to such similar purposes.

ARTICLE IX

AMENDMENTS

Amendment of these Articles shall require the assent of 75 Percent (75%) of the entire membership.

IN WITNESS WHEREOF, for the purpose of forming this Corporation under the laws of the State of Colorado, I, the undersigned, constitution the incorporator of this Corporation, have executed these Articles of Incorporation this _____day of _____, 1992.

Jimmy Hopper 484 Duke Hill Road Hotchkiss, Co. 81419

BY-LAWS OF THE DUKE DITCH COMPANY

ARTICLE I.

NAME AND LOCATION. The name of the corporation is THE DUKE DITCH COMPANY, hereinafter referred to as the "company". The principal office of the corporation shall be located at 484 Duke Hill Road, Hotchkiss, Colorado, 81419 but meetings of shareholders and directors may be held at such places within the State of Colorado, County of Delta, as may be designated by the Board of Directors.

ARTICLE II.

DEFINITIONS

- Section 1. "Company" shall mean and refer to THE DUKE DITCH COMPANY, it successors and assigns.
- Section 2. "Properties" shall mean and refer to that certain property belonging to the company, which includes its' water rights, and ditch and ditch rights, and such additions thereto as may hereafter be brought within the jurisdiction of the company.
- Section 3. "Shareholder" shall mean and refer to the record owner, whether one or more persons or entities, of the shares in The Duke Ditch Company.

ARTICLE III.

MEETING OF SHAREHOLDERS

- Section 1. Annual Meetings. The first annual meeting of the shareholders shall be held within one year from the date of incorporation of the Association, and each subsequent regular annual meeting of the shareholders shall be held on the same day of the same month of each year thereafter, at the hour of 9:00 o'clock A.M. If the day of the annual meeting of the shareholders is a legal holiday, the meeting will be held at the same hour on the first day following which is not a legal holiday.
- Section 2. Special Meetings. Special meetings of the shareholders may be called at any time by the president or by the Board of Directors, or upon written request of the shareholders who are entitled to vote one-fourth of all the votes.
- Section 3. Notice of Meetings. Written notice of each meeting of the shareholders shall be given by, or at the direction of, the secretary or person authorized to call the meeting, by mailing a copy of such notice, postage prepaid, at least 15 days before such meeting to each shareholder

entitled to vote thereat, addressed to the shareholders'address last appearing on the books of the company, or supplied by such shareholder to the company for the purpose of notice. Such notice shall specify the place, day and hour of the meeting, and, in the case of a special meeting, the purpose of the meeting.

Section 4. Quorum. The presence at the meeting of shareholders entitled to cast, or of proxies entitled to cast, one fifth of the votes of shareholders shall constitute a quorum for any action except as otherwise provided in the Articles of Incorporation or these By-Laws. If, however, such quorum shall not be present or represented at any meeting, the shareholders entitled to vote thereat shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum as aforesaid shall be present or be represented.

Section 5. Proxies. At all meetings of shareholders, each shareholder may vote in person or by proxy. All proxies shall be in writing and filed with the secretary. Every proxy shall be revocable and shall automatically cease upon conveyance by the shareholder of his shares.

ARTICLE IV.

BOARD OF DIRECTORS: SELECTION: TERM OF OFFICE

Section 1. Number. The affairs of this company shall be managed by a Board of three (3) Directors, who must be shareholders in the company.

Section 2. Term of Office. At the first annual meeting the shareholders shall elect three directors for a term of one year, and at each annual meeting thereafter the shareholders shall elect three directors for a term of one year.

Section 3. Removal. Any director may be removed from the Board, with or without cause, by a majority vote of the shareholders of the company. In the event of death, resignation or removal of a director, his successor shall be selected by the remaining members of the Board and shall serve for the unexpired term of his predecessor.

Section 4. Compensation. No director shall receive compensation for any service he may render to the Company. However, any director may be reimbursed for his actual expenses incurred in the performance of his duties.

Section 5. Action Taken Without a Meeting. The Directors shall have the right to take any action in the absence of a meeting which they could take at a meeting by obtaining the written approval of a majority of the shareholders. Any action so approved shall have the effect as though taken at a meeting of the directors.

ARTICLE V.

NOMINATION AND ELECTION OF DIRECTORS

Section 1. Nomination. Nomination for election to the Board of Directors shall be made by the shareholders at the annual meeting. Such reminations must be of persons who are shareholders in the company.

Section 2. Election. Election to the Board of Director shall be by a show of hands. At such election the shareholders or their proxies may cast, in respect to each vancancy, as many votes as they are entitled to exercise. The persons receiving the largest number of votes shall be elected.

ARTICLE VI.

MEETINGS OF DIRECTORS

Section 1. Regular Meeting. The Regular Meeting of the Board of Directors shall be held immidiately following the annual meeting of the shareholders.

Section 2. Special Meetings. Special meetings of the Board of Directors shall be held when called by the president of the company, or by any two directors, after not less than three (3) days notice to each director.

Section 3. Quorum. A majority of the number of directors shall constitute a quorum for the transaction of business. Every act or decision done or made by a majority of the directors present at a duly held meeting at which a quorum is present shall be regarded as the act of the Ecard.

X

ARTICLE VII.

PGWERS AND DUTIES OF THE BOARD OF DIRECTORS

Section 1. Powers. The Board of Directors shall have power to:

(a) Adopt and publish rules and regulations governing the shareholders' use of water belonging to the ditch company. They shall also adopt and publish rules pertaining to the transfer of shares to a new shareholder, and also pertaining to the lease of said shares.



- (b) Suspend the voting rights of a shareholder during any period in which such shareholder shall be in default in the payment of any assessment levied by the company.
- (c) Exercise for the company all powers, duties, and authority wested in or delegated to this company and not reserved to the shareholders by other provisions of these Ey-laws or the Articles of incorporation.

(d) Declare the office af a member of the Board of Directors to be vacant in the event such member shall be absent from three (3) consecutive regular meetings of the Board or Directors; and Employ a manager, an independent contractor, or such employees as they deem necessary, and to prescribe their duties. Section 2. Duties. It shall be the duty of the Board of (a) Cause to be kept a complete record of all

- Directors to:
 - its acts and corporate affairs and to present a statement thereof to the shareholders at the annual meeting of the shareholders, or at any special meeting when such statement is requested in writing by one-fourth of the shareholders who are entitled to vote;
 - (b) Supervise all officers, agents and employees of this company, and to see that their duties are properly performed;
 - To fix the amount of the annual assessment to each shareholder at least thirty (30) days in advance of each annual assessment period; send written notice of each assessment to every shareholder subject thereto at least thirty (30) days in advance of each annual assessment period; Foreclose the lein against any shares for which assessments are not paid within sixty (60) days after due date or to bring an action at law against the shareholder personally obligated to pay the same.
 - (d) Issue, or to cause an appropriate officer to issue, upon demand by any person, a certificate setting forth whether or not any assessment has been paid. A reasonable charge may be made by the Board for the issuance of these certificates. If a certificate states an assessment has been paid, such certificate shall be conclusive evidence of such payment;
 - (e) Cause all officers or employees having fiscal responsibilities to be bonded, as it may deem appropriate;
 - Cause the properties of the company to be maintained.

ARTICLE VIII.

OFFICERS AND THEIR DUTIES

Section 1. Enumeration of officers. The officers of this company shall be a president and vice-president, who shall at all times be members of the Board of Directors; a secretary; and a treasurer; and such other officers as the Board may from time to time by resolution create.

- Section 2. Election of Officers. The election of officers shall take place at the first meeting of the Board of Directors following each annual meeting of the members.
- Section 3. Term. The officers of this Company shall be elected annually by the Board and each shall hold office for one (1) year unless he shall sooner resign, or shall be removed, or otherwise disqualified to serve.
- Section 4. Special Appointments. The Board may elect such other officers as the affairs of the Company may require, each of whom shall hold office for such period, have such authority, and perform such duties as the Board may, from time to time, determine.
- Section 5. Resignation and Removal. Any officer may be removed from office with or without cause by the Board. Any officer may resign at any time giving written notice to the Board, the president or the secretary. Such resignation shall take effect on the date of receipt of such notice or at any later time specified therein, and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.
- Section 6. <u>Vacancies</u>. A vacancy in any office may be filled by appointment by the Board. The officer appointed to such vacancy shall serve for the remainder of the term of the officer he replaces.
- Section 7. Multiple Offices. The offices of secretary and treasurer may be held by the same person. No person shall simultaneously hold more than one of any of the other offices except in the case of special offices created pursuant to section 4 of this Article.
- $\underline{\text{Section 8}}$. $\underline{\text{Duties}}$. The duties of the officers are as follows:

President

(a) The president shall preside at all meetings of the Board of Directors, shall see that orders and resolutions of the Board are carried out, shall sign all leases, mortgages, deeds and other written instruments and shall co-sign all promissory notes.



Vice-President

(b) The vice-president shall act in the place and stead of the president in the event of his absence, inability or refusal to act, and shall exercise and discharge such other duties as may be required of him by the Board.

Secretary

(c) The secretary shall record the votes and keep the minutes of all meetings and proceedings of the Board and of the shareholders: Keep the corporate seal of the Company and affix it on all papers requiring said seal; serve notice of meetings of the Board and of the shareholders; keep appropriate current records showing the members of the Company together with their addresses, and shall perform such other duties as required by the Board.

Treasurer

(d) The treasurer shall receive and deposit in appropriate bank accounts all monies of the Company and shall disburse such funds as directed by resolution of the Board of Directors; shall sign all checks and promissory notes of the Company; keep proper books of account; cause an annual audit of the Company books to be made by a public accountant at the completion of each fiscal year; and shall prepare an annual budget and a statement of income and expenditures to be presented to the shareholders at its regular annual meeting, and deliver a copy of each to the shareholders.

ARTICLE IX.

COMMITTEES

The Board of Directors shall appoint committees as deemed appropriate in carrying out its purpose.

ARTICLE X.

BOOKS AND RECORDS

The books, records and papers of the Company shall at all times, during reasonable business hours, be subject to inspections by any shareholder. The Articles of Incorporation, and the By-Laws of the Company shall be available for inspection by any shareholder at the principal office of the Company, where copies may be purchased at reasonable cost.

ARTICLE XI.

ASSESSMENTS

As more fully provided in the Declaration, each shareholder is obligated to pay to the Association annual and special assessments which are secured by a continuing lien upon the shares against which the assessment is made. Any assessments which are not paid when due shall be delinquent. If the assessment is not paid within thirty (30) days after the due date, the assessment shall bear interest from the date of delinquency at the rate of ten percent (10%) per annum, and the Company may bring an action at law against the shareholder personally obligated to pay the same or foreclose the lien against the shares, and interest, costs, and reasonable attorney's fees of any such action shall be added to the amount of such assessment. No shareholder may waiver or otherwise escape liability for the assessments provided for herein by nonuse or shares or

abandonment of his shares.

ARTICLE XII.

AMENDMENTS

Section 1. These By-Laws may be amended, at a regular or special meeting of the shareholders, by a vote of a majority of a quorum of shareholders present in person or by proxy.

Section 2. In the case of any conflict between the Articles of Incorporation and these By-Laws, The Articles shall control.

ARTICLE XIII.

CORPORATE SEAL

The Company shall have a seal in circular form having within its circumference the words: THE DUKE DITCH COMPANY.

ARTICLE XIV.

MISCELLANEOUS

The fiscal year of the Company shall begin on the first day of January and end on the 31st day of December of every year, except that the first fiscal year shall begin on the date of incorporation.

IN WITNESS WHEREOF, we, being all of the directors of The Duke Ditch Company, have hereunto set our hands this day of, 1992.
John Hotchkiss - President - Director
John R. Neill - Vice President - Director
Jimmy Hopper - Secty/Treas - Director
STATE OF COLORADO))ss County of Delta)
The foregoing instrument was acknowledged before me this
day of, A.D., 1992, by:
John Hotchkiss, John R. Neill, and Jimmy Hopper
Witness my hand and official seal.
My commission expires:
· ·
CERTIFICATION
I, the undersigned, do hereby certify: THAT I am the duly elected and acting secretary of The Duke Ditch Company, a Colorado Corporation, and, THAT the foregoing By-Laws constitute the original By-Laws of said Company, as duly adopted at a meeting of the Board of Directors thereof, held on theday of
IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said Company thisday of, 1992.
Secretary



I, MARY ESTILL BUCHANAN, Secretary of State of the State of Colorado hereby certify that the prerequisites for the issuance of this certificate have been fulfilled in compliance with law and are found to conform to law.

Accordingly, the undersigned, by virtue of the authority vested in me by law, hereby issues A CERTIFICATE OF REMEMBL OF CORPORATE LIFE OF THE DUKE DITCH COMPANY. MAKING TERM PERPETUAL.



Mary Setill Buchasan SECRETARY OF STATE

DATED:

OCTOBER 13, 1978

CERTIFICATE OF RENEWAL OF CORPORATE LIFE OF THE DUKE DITCH COMPANY

13 OCT 178

The undersigned do hereby certify:

- 1. On June 26, 1978, a special meeting of the stockholders of the Duke Ditch Company, a Colorado Nonprofit Corporation, TE was held pursuant to notice by publication as provided by the Colorado Corporation Code, CRS 1973, Sec. 7-42-112.
- 2. A majority of the stock of the Corporation was represented at said meeting.
- 3 The vote was taken and a majority of the votes cast were in favor of extending the life of the Corporation for a perpetual duration.

In witness whereof, we have hereunto set our hands, this 26th day of June, 1978.

The Duke Ditch Company

Adair J. Hotchkiss, II.

President

James E. Hopper,

Secretary

State of Colorado) ss.

The foregoing instrument was acknowledged before me this 26th day of June, 1978, by Adair J. Hotchkiss, II, as President and James E. Hopper as Secretary of the Duke Ditch Company, a corporation.

My notarial commission expires May 22, 1982.

Witness my hand and official seal.

Motary Public

Appendix B

Water Rights Summary
And
State Engineer Diversion Reports
2012, 2013, 2014

Structure Name: **DUKE DITCH** Water District: 40 Structure ID Number: 920 Source: LEROUX CREEK Q10 Q40 Q160 Twnshp Section PM Location: Range SW SW SE 23 148 93W S Distance From Section Lines: From N/S Line: 602 S From E/W Line: 2299 E UTM Coordinates (NAD 83): Northing (UTM y): 4299973 Easting (UTM x): 261051 Spotted from PLSS distances from section lines Latitude/Longitude (decimal degrees): 38.816144 -107.752151 Water Rights Summary: Total Decreed Rate(s) (CFS): Absolute: 7.5000 Conditional: 0.0000 AP/EX: 0.0000 Total Decreed Volume(s) (AF): Absolute: 0.0000 Conditional: 0.0000 AP/EX: 0.0000

Water Rights -- Transactions Adjudication Appropriation Administration Case Order Priority Adjudication Decreed Number Date Number Number Number Amount Type Uses **Action Comment** CA0346 1904-02-20 1892-08-31 19415.15584 0 26A 2.5000 C S P204 1 89CW0151 50769.15584 0 1989-12-31 1892-08-31 5.0000 C S 1 LOCATION IN ERROR AKA DUKE DITCH ENLARGEMENT

Water Rights -- Net Amounts Adjudication Appropriation Administration Rate (CFS) Volume (Acre-Feet) Priority/Case Date Date Number Number Order Number Absolute Conditional AP/EX Absolute Conditional AP/EX 19415.15584 1904-02-20 1892-08-31 0 26A 2.5000 0 0 50769.15584 1989-12-31 0 1892-08-31 89CW0151 5.0000 0 0

Irrigated Acres Summary -- Totals From Various Sources

GIS Total (Acres):

Reported:

Diversion Comments Total (Acres):

200

Reported: 2006

Structure Total (Acres):

Reported:

Irrigated Acres From GIS Data Year Land Use Acres Flood Acres Furrow Acres Sprinkler

Acres Drip

Acres Groundwater

Acres Total

No data available for this report

HydroBase Refresh Date: 2015-08-24

Diversion Summary in Acre-Feet - Total Water Through Structure

Yea	ar FDU	LDU	DWC	Maxq & Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Total
197	0 1970-04-04	1970-10-31	211	10 05-10	0	0	0	0	0	236	579	474	307				
197	1 1971-04-09	9 1971-10-31	206	8 05-17	0	0	0	0	0	175	428	278	307	262	274	260	2392
197	2 1971-11-01	1972-10-31	244	5 05-07	179	0	0	0	0	201	290	208	215	265 215	243 224	277	1973
197	3 1973-04-01	1973-10-31	214	6 06-01	0	0	0	0	0	119	184	357	307	215	208	246	1778
197	4 1973-11-01	1974-10-31	225	7 05-11	149	0	0	0	0	65	367	298	307	277	238	123	1514
197	5 1975-04-15	1975-10-30	199	6 05-11	. 0	0	0	0	0	127	319	337	248	256	241	246	1947
1976	6 1976-05-01	1976-10-31	184	6 05-16	0	0	0	0	0	0	321	309	262	215	208	238	1767
1977	7 1977-04-15	1977-10-31	200	4 05-07	0	0	0	0	0	95	209	193	184	154	133	215	1531
1978	B 1978-04-18	1978-10-31	197	10 06-14	0	0	0	0	0	61	436	528	257	234	200	123 181	1092
1979	1979-04-25	1979-10-31	190	11 06-11	0	0	0	0	0	60	543	541	293	264	245	220	1898
1980	1980-05-01	1980-10-31	184	8 05-18	0	0	0	0	0	0	458	452	325	284	247	246	2167 2012
1981	1981-05-01	1981-10-31	141	5 05-01	0	0	0	0	0	0	278	148	0	242	228		
1982	1982-05-01	1982-10-11	164	9 06-05	0	0	0	0	0	0	460	498	369	265	135	213	1109
1983	1983-04-18	1983-10-31	197	6 06-21	0	0	0	0	0	93	213	277	232	154	140	33	1759
1984	1984-05-07	1984-10-31	178	6 05-24	0	0	0	0	0	0	239	303	198			108	1217
1985	1985-04-24	1985-09-29	159	7 05-13	0	0	0	0	0	49	266	264	194	146	146	154	1186
1986	1986-04-15	1986-09-28	167	7 05-29	0	0	0	0	0	82	254	362		209	185	0	1167
1987	1987-04-29	1987-10-14	169	5 04-29	0	0	0	0	0	18	269	242	241	202	160	0	1302
1988	1988-04-18	1988-10-30	196	6 05-16	0	0	0	0	0	126	249		196	231	225	94	1275
1989		1989-10-31	212	5 05-20	0	0	0	0	0	136	173	139	204	212	202	186	1320
1990	1990-05-03	1990-10-23	174	4 07-26	0	0	0	0	0	0	95	148	165	182	188	203	1195
1991		1991-10-20	170	5 05-06	0	0	0	0	0	0		137	234	242	224	. 138	1071
1992			159	7 05-07	0	0	0	0	0		144	135	190	203	203	156	1031
1993			166	4 07-07	0	0	0	0	0	0	239	215	214	188	179	83	1116
1994			165	5 05-05	0	0	0	0		0	118	191	218	216	199	153	1095
1995	1995-04-05		193	8 04-05	0	0	0 ,		0	15	270	200	174	199	160	54	1071
1996	1996-04-09		189	10 05-13	0	0	0	0	0	353	353	327	264	218	266	111	1892
1997	1997-04-15		183	10 04-21	0	0		0	0	218	393	174	232	228	208	81	1533
1998	1998-04-25		170	10 04-27	0	0	0	0	0	247	433	504	402	413	367	107	2473
1999	1999-04-06		193	8 05-15	. 0	0	0	0	0	93	389	369	250	223	334	200	1858
2000	2000-04-25		174	9 05-02	0	0	0	0	0	179	349	296	241	340	405	202	2012
2001	2001-04-14		180	9 05-16	0	0		0	0	42	349	175	168	219	251	101	1305
2002	2002-04-06		192	5 08-22	0	0	0	0	0	73	429	178	238	245	270	146	1579
2003	2003-04-05		195	11 05-27			0	0	0	80	109	157	218	276	275	. 118	1233
2004	2004-04-16		182	9 05-20	0	0	, 0	0	0	131	454	237	244	252	240	127	1685
2005	2005-04-13		185	11 05-25		0	0	0	0	92	353	250	281	188	162	67	1393
2006	2006-04-05		209	7 04-23	0	0	0	0	0	228	507	510	371	360	378	176	2529
2007	2007-04-21		194	12 05-13	0	0	0	0	0	128	239	217	298	326	306	295	1809
2008	2008-04-21		176	7 07-02	0	0	0	0	0	68	417	249	432	354	238	228	1987
2009	2009-04-22		194		0	0	0	0	0	92	189	203	336	358	384	180	1742
2010			180	12 06-18	0	0	0	0	0	83	232	383	201	234	248	229	1611
2011	2010-04-16		199	7 04-16	0	0	0	0	0	199	195	194	203	265	231	76	1364
2012			161	7 06-08	0	0	0	0	0	109	135	378	304	232	238	70	1467
2013	2012-05-14		184	4 08-16	0	0	0	0	0	0	85	165	193	247	233	155	1079
2014	2013-04-22			7 05-15	0	0	0	0	0	22	160	169	176	217	219	142	1104
====	2014-04-14		161	6 04-22	0	0 .	0	0	0	118	89	96	214	253	170	2	944
			mum:	4	0	0	0	0	0	0	85	96	0	146	133	0	944
			mum:	12	179	0	0	0	0	353	579	541	432	413	405	295	2529
45.00	years with diver		erage:	7	7	0	0	0	0	94	295	277	247	244	232	150	1546
10.00	, -ui - will uivel	JIOIT ICCOIUS															

45.00 years with diversion records

The average considers all years with diversion records, even if no water is diverted. Notes:

Report Date: 2016-01-11

Page 2 of 2

HydroBase Refresh Date: 2015-08-24

The above summary lists total monthly diversions.

* = Infrequent Diversion Record. All other values are derived from daily records.

Average values include infrequent data if infrequent data are the only data for the year.

ocation:

1847

tructure Name:

DUKE DITCH

ource:

BARROW GULCH

NE NE

Northing (UTM y):

Q10 Q40 Q160

NW 25

istance From Section Lines: From N/S Line:

139 N

4299661

38.813686

Section

Twnshp Range PM

93W S

From E/W Line:

1995 W Easting (UTM x):

262348 -107.737121 Spotted from PLSS distances from section lines

Water District: 40

Vater Rights Summary:

TM Coordinates (NAD 83):

atitude/Longitude (decimal degrees):

Total Decreed Rate(s) (CFS):

Absolute:

148

2.5000

Conditional:

0.0000

AP/EX:

Structure ID Number:

0.0000

Total Decreed Volume(s) (AF):

Absolute:

0.0000

Conditional:

0.0000

AP/EX:

0.0000

Water Rights -- Transactions

Case Number

Adjudication Appropriation Administration Date Number

Order Number Priority Number

Decreed Amount

Adjudication Type

Conditional

Uses

Action Comment

CA0346

1904-02-20 1892-08-31

19415.15584

0 26A 2.5000 C S

1

P204

Water Rights -- Net Amounts Rate (CFS) Priority/Case

Date Date

Adjudication Appropriation Administration Number

Order Number

Number

Absolute

AP/EX

Volume (Acre-Feet) Conditional Absolute

AP/EX

1904-02-20

19415.15584 1892-08-31

0 26A

2.5000

0

Irrigated Acres Summary -- Totals From Various Sources

GIS Total (Acres):

86.0308

Reported: 2010

Diversion Comments Total (Acres):

Structure Total (Acres):

Reported:

Reported:

Irrigated Acres From GIS Data

			migatea Acres	o i ioiii Gio Data			
Year	Land Use	Acres Flood	Acres Furrow	Acres Sprinkler	Acres Drip	Acres Groundwater	Acres Total
1993	***Year Total***	0	95.00	0	0	0	95.00
1993	ALFALFA	0	21.68	0	0	0	21.68
1993	GRASS_PASTURE	. 0	73.32	0	0	0 .	73.32
2005	***Year Total***	0	86.03	0	0	0	86.03
2005	ALFALFA	0	18.82	0	0	0	18.82
2005	GRASS_PASTURE	0	67.21	0	0	. 0	67.21
2010	***Year Total***	0	86.03	0	0	0	86.03
2010	GRASS_PASTURE	0	86.03	0	0	0	86.03
				376	•	U	00,03

Diversion Summary in Acre-Feet - Total Water Through Structure

Year	FDU	LDU	DWC	Maxq & Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Total
2006	2006-06-09	2006-10-31	145	4 08-21	0	0	0	0	0	0	0	69	140	225	231	239	904
.2007	2007-04-25	2007-10-31	190	4 07-09	0	0	0	0	0	4	38	159	193	213	217	228	1053
5008	2008-04-25	2008-10-14	173	5 06-14	0	0	0	0	0	7	41	227	237	226	202	94	1034
2009	2009-04-21	2009-10-31	194	4 09-14	0	0	0	0	0	9	57	107	139	171	223	225	931
2010	2010-05-04	2010-10-12	162	4 08-11	0	0	0	0	0	0	37	68	170	230	223	76	804
2011	2011-04-27	2011-10-17	184	5 10-03	0	0	0	0	0	2	27	144	165	188	232	246	1005
2012	2012-04-30	2012-09-01	175	3 07-19	0	0	0	0	0	2	58	115	156	144	60	42	576
2013	2013-05-15	2013-10-23	169	4 08-28	0	0	0	0	0	0	23	40	166	199	. 213	99	740
2014	2014-04-22	2014-10-06	191	5 09-18	0	0	0	0	0_	14	43	130	156	188	230	95	858
-		M	linimum:	3	0	0	0	0	0	0	0	40	139	144	60	42	576
		Ma	aximum:	5	0	0	0	0	0	14	58	227	237	230	232	246	1053
		, A	lverage:	4	0	0	0	0	0	4	36	118	169	198	203	149	878

9.00 years with diversion records

Notes:

The average considers all years with diversion records, even if no water is diverted.

The above summary lists total monthly diversions.

* = Infrequent Diversion Record. All other values are derived from daily records.

Average values include infrequent data if infrequent data are the only data for the year.

Report Date: 2016-01-11

Dana 2 of 2

Annual Water Diversion Report

Division: 4

Water District: 40

Irrigation Year: 2012

(2011-11-01 To 2012-10-31)

Structure Name:

DUKE DITCH

(920)

Source:

NATURAL STREAMFLOW

(1)

Source Stream:

LEROUX CREEK

(13)

From: Use:

IRRIGATION

(1)

Type:

Group:

2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.800 4.400 3. 2570 2800 3.600 3.700 3. 3000 2800 3.600 3.700 3. 3111 33 3000 2800 3.600 3.700 3. 3113 3000 2800 3.600 3.700 3. 3114 3000 2800 3.600 3.700 3. 3115 3000 2800 3.600 3.700 3. 3116 3000 3800 3.700 3. 3117 3000 3800 3800 3.700 3. 3118 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.700 3. 3119 3000 3800 3800 3.00	Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
3										2.800			3.720
\$\begin{array}{c c c c c c c c c c c c c c c c c c c									2.570	2.800	3.600	4.400	3.720
5 2.570 2.800 3.600 4.400 3.600 3.600 4.400 3.600 3.600 4.400 3.600 3.600 4.400 3.600 3.600 3.600 4.400 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.720 3.600 3.600 3.720 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.600 3.600 3.720 3.	- 1								2.570	2.800	3.600	4.400	3.720
6	255			E.					2.570	2.800	3.600	4.400	3.720
7 8 9 9 1 2.570 2.800 3.600 4.400 3.3 9 9 2.570 2.800 3.600 4.400 3.3 10 10 2.570 2.800 3.600 4.400 3.3 111 2 2.570 2.800 3.600 3.720 3.3 13 3 3 0.00 2.800 3.600 3.720 3.3 13 4 2.240 3.000 2.800 3.600 3.720 3.7 15 2.240 3.000 2.800 3.600 3.720 3.7 16 2.240 3.000 2.800 3.600 3.720 3.7 17 18 2.240 3.000 2.800 3.600 3.720 3.7 18 2.240 3.000 2.800 3.600 3.720 3.7 19 2.240 3.000 2.800 3.600 3.720 3.7 19 2.240 3.000 2.800 3.600 3.720 3.7 22 2.240 3.000 2.800 3.600 3.720 3.7 22 2.240 3.000 2.800 3.600 3.720 3.7 23 2.240 3.000 2.800 3.600 3.720 3.7 24 2.240 3.000 2.800 3.600 3.720 3.7 25 2.240 3.000 2.800 3.600 4.400 3.720 3.7 26 2.240 3.000 2.800 3.600 4.400 3.720 3.7 27 20 2.400 3.000 2.800 3.600 4.400 3.720 3.7 28 2.240 2.800 3.600 4.400 3.720 3.7 29 2.240 2.800 3.600 4.400 3.720 3.7 20 2.240 2.800 3.600 4.400 3.720 3.7 21 2.240 2.800 3.600 4.400 3.720 3.7 22 2.240 2.800 3.600 4.400 3.720 3.7 25 2.240 2.800 3.600 4.400 3.720 3.7 26 2.240 2.800 3.600 4.400 3.720 3.7 27 2.25 2.240 2.800 3.600 4.400 3.720 3.7 28 2.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.240 2.800 3.600 4.400 3.720 3.7 29 3.2570 2.800 3.600 4.400 3.720 3.7 20 3.2570 2.800 3.600 4.400 3.720 3.7 20 3.25 3.2570 3.300 3.600 4.400 3.720 3.7 20 3.300 3.300 3.300 3.600 4.400 3.720 3.7 20 3.300 3.300 3.300 3.600 4.400 3.720 3.7 20 3.300 3.300 3.300 3.600 3.600 4.400 3.720 3.7 20 3.300 3.300 3.300 3.600 3.600 3.600 3.600 3.7 20 3.300 3.300 3.300 3.600 3.600 3.7 20 3.300 3.300 3.300 3.7 20 3.300 3.300 3.600 3.600 3.7 20 3.300 3.300 3.7 20 3.300 3.300 3.7 20 3.300 3.300 3.7 20 3.300 3.300 3.7 20 3.300 3.000 3.000 3.000 3.000 3.000									2.570	2.800	3.600	4.400	3.720
7 8 9 2570 2.800 3.600 4.400 3.3 9 9 2570 2.800 3.600 4.400 3.3 110 2570 2.800 3.600 4.400 3.3 111 3.000 2.800 3.600 3.720 3.3 112 3.000 2.800 3.600 3.720 3.3 113 3.000 2.800 3.600 3.720 3.3 114 4 2 240° 3.000 2.800 3.600 3.720 3.7 115 4 2 240° 3.000 2.800 3.600 3.720 3.7 116 5 2 240° 3.000 2.800 3.600 3.720 3.7 117 4 2 240° 3.000 2.800 3.600 3.720 3.7 118 6 2 240° 3.000 2.800 3.600 3.720 3.7 119 7 2 2400 3.000 2.800 4.400° 3.720 3.7 119 8 2 240° 3.000 2.800 4.400° 3.720 3.7 120 2 2400 3.000 2.800 4.400° 3.720 3.7 121 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									2.570	2.800	3.600	4.400	3.720
9	- 1								2.570	2.800	3.600	4.400	3.720
2.570									2.570	2.800	3.600		3.720
10									2.570	2.800	3.600		3.720
3,000 * 2,800 3,600 3,720 3,720 3,721 3,72									2.570	2.800	3.600		3.720
12 3.000 2.800 3.600 3.720 3.721 3.141 3.000 2.800 3.600 3.720 3.721 3.141 3.000 2.800 3.600 3.720 3.721 3.141 3.000 2.800 3.600 3.720 3.721 3									3.000 *	2.800	3.600		3.720
3.000 2.800 3.600 3.720 3.71 15									3.000	2.800			3.720
14						50			3.000	2.800			3.720
15								2.240 *	3.000				3.720
16 17								2.240	3.000				3.720
17								2.240	3.000				3:720
18	17							2.400 *	3.000				3.720
2,400	18							2.400					3.720
20	19							2.400					3.720
21	20							2.400					3.720
22 2 3 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.570 2.800 3.600 4.400 3.720 2.570 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720	21												3.720
23	22												0 *
24	23												U
25	24												
26 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.570 2.570 2.800 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 3.570 3.570 3.600 4.400 3.720 3.570 3.570 3.600 4.400 3.720 3.570 3.570 3.600 4.400 3.720 3.570 3.570 3.600 4.400 3.720 3.570 3.5	25												
27	26												
28 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.400 2.800 3.600 4.400 3.720 2.570 2.570 2.800 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 3.720 3.600 4.400 3.720 3.720 3.600 4.400 3.720 3.600 3.6	27												
29 30 3.600 4.400 3.720 2.570 2.800 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 3.720 3.600 4.400 3.720 3.600 3.600 4.400 3.720 3.600 3.600 3.600 4.400 3.720 3.600	28												
30 31 2.570 * 2.800 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 2.570 3.600 4.400 3.720 3.600 3.600 3.600 3.600 4.400 3.720 3.60	29												
31 2.570 3.600 4.400 SFD: 0.000 0.000 0.000 0.000 0.000 43.060 83.300 97.200 124.400 117.720 78.12 Used: 0 0 0 0 0 0 0 18 30 31 31 30 22 FD: 0.000 0.000 0.000 0.000 0.000 0.000 2.392 2.777 3.135 4.013 3.924 3.72	30												
SFD: 0.000 0.000 0.000 0.000 0.000 43.060 83.300 97.200 124.400 117.720 78.12 Used: 0 0 0 0 0 18 30 31 31 30 2 SFD: 0.000 0.000 0.000 0.000 0.000 2.392 2.777 3.135 4.013 3.924 3.72	31		38						2.000			5.720	
Used: 0 0 0 0 0 0 18 30 31 31 30 2 FD: 0.000 0.000 0.000 0.000 0.000 2.392 2.777 3.135 4.013 3.924 3.72	SFD:	0.000	0.000	0.000	0.000	0.000	0.000	43.060	83 300			117 700	70 400
SFD: 0.000 0.000 0.000 0.000 0.000 0.000 2.392 2.777 3.135 4.013 3.924 3.72													
2.002 2.002 2.111 3.150 4.013 3.924 3.72													21
AF: 0.000 0.000 0.000 0.000 0.000 0.000 165.230 192.800 246.750 233.500 154.95	AF:		0.000										3.720 154.950

Annual Total SFD: Total Days Used:

Annual Total Acre Feet:

543.800

1078.627

SFD

AF

. 161 DAYS

 * Indicates Observed data. U Indicates User supplied data. All other data is interpreted from previous observed value.

Water Commissioner

Paul A.Schmucker

Annual Water Diversion Report

Division: 4

Water District: 40

Irrigation Year: 2013

(2012-11-01 To 2013-10-31)

Structure Name: Source Stream:

DUKE DITCH

LEROUX CREEK

(920)

Source:

NATURAL STREAMFLOW

(1)

(13)From:

IRRIGATION

(1)

Type: Group:

Use:

Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
1							1.240	1.370	2.500*	3.170	3.810	3.250	٦
2							1.240	1.370	2.500	3.170	3.810	3.250	
3							1.600 *	1.370	2.500	3.170	3.810	3.250	
4	•	8					1.600	2.900 *	2.500	3.170	3.810	3.250	
5						98	1.600	2.900	2.500	3.170	3.810	3.250	
6			,				1.600	2.900	2.500	3.170	3.810	3.250	
7							1.600	2.900	2.500	3.170	3.810	3.250	1
8							1.240 *	2.900	2.500	3.170	3.810	3.250	
9							1.240	2.900	2.500	3.620*	3.810	3.250	
10	9						1.240	3.260 *	2.500	3.620	3.810	3.250	1
11							1.240	3.260	2.500	3.620	3.810	3.250	1
12							1.240	3.170 *	2.500	3.620	3.810	3.250	1
13							1.240	3.170	2.500	3.620	3.810	3.250	1
14							1.240	3.170	2.500	3.620	3.810	3.250	1
15							6.800 *	3.170	3.170*	3.620	3.810	3.250	1
16							6.800	3.170	3.170	3.620	3.810	3.250	1
17							6.800	3.170	3.170	3.620	3.810	3.250	1
18	88						6.800	2.820 *	3.170	3.620	3.810	3.250	1
19							6.800	2.820	3.170	3.620	3.810	3.250	19
20							6.800	2.820	3.170	3.620	3.810	3.250	2
21							6.800	2.820	3.170	3.620	3.810	3.250	2
22						1.240*	1.370 *	2.820	3.170	3.620	3.810	3.250	2
23						1.240	1.370	2.820	3.170	3.620	3.810	0 *	2
24						1.240	1.370	2.820	3.170	3.620	3.250*		2
25						1.240	1.370	2.820	3.170	3.620	3.250		2
26						1.240	1.370	3.080 *	3.170	3.620	3.250		28
27		7	*			1.240	1.370	3.080	3.170	3.620	3.250		27
28						1.240	1.370 *	3.080	3.170	3.810*	3.250		28
29						1.240	1.370	3.080	3.170	3.810	3.250		29
30					W/ 9 2	1.240	1.370	3.080	3.170	3.810	3.250		30
31							1.370		3.170	3.810			31
FD:	0.000	0.000	0.000	0.000	0.000	11.160	80.460	85.010	88.890	109.380	110.380	71.500	
Jsed:	0	0	0	0	0	9	31	. 30	31	31	30	22	
D:	0.000	0.000	0.000	0.000	0.000	1.240	2.595	2.834	2.867	3.528	3.679	3.250	
F:	0.000	0.000	0.000	0.000	0.000	22.140	159.590	168.620	176.310	216.960	218.940	141.820	

Annual Total SFD:

Total Days Used: Annual Total Acre Feet: 556.780

SFD

AF

184 DAYS 1104.373

* Indicates Observed data. U Indicates User supplied data. All other data is interpreted from previous observed value.

Water Commissioner

Paul A. Schmucker

Annual Water Diversion Report

Division: 4

Water District: 40

Irrigation Year: 2014

(2013-11-01 To 2014-10-31)

Structure Name:

DUKE DITCH

LEROUX CREEK

(920)

Source:

NATURAL STREAMFLOW

(1)

Source Stream:

(13)

From: Use:

IRRIGATION

(1)

Type:

Group:

ov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						1.450 *	1.450	2.750	4.000	4.200	1.100
94						1.450	1.450	3.260*	4.000	4.200	. (
						1.450	1.450	3.260	4.000	4.200	
						.1.450	1.450	3.260	4.000	4.200	
					40	1.450	1.450	3.260	4.000	4.200	
						1.450	0 *	3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.000	4.200	
						1.450		3.260	4.200 *	4.200	
					0.600 *	1.450		3.260	4.200	4.200	
					0.600	1.450		3.600*	4.200	4.200	
					0.600	1.450	2.750 *	3.600	4.200	4.200	
					0.600	1.450	2.750	3.600	4.200	4.200	
					0.600	1.450	2.750	3.600	4.200	1.100*	19
					0.600	1.450	2.750	3.600	4.200	1.100	
					0.600	1.450	2.750	3.600	4.200	1.100	
					0.600	1.450	2.750	3.600	4.200	1.100	
					6.100*	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	3.600	4.200	1.100	
					6.100	1.450	2.750	4.000*	4.200	1.100	
					6.100	1.450	2.750	4.000	4.200	1.100	
					6.100	1.450	2.750	4.000	4.200	1.100	
	-					1.450		4.000	4.200	1.100	
000	0.000	0.000	0.000	0.000	59.700	44.950	48.500	107.930	127.800	85.700	1.100
0	0	0	Ó	0	17	31	20	31	31	30	1.100
000	0.000	0.000	0.000	0.000	3.512	1.450	2.425	3.482	4.123	2.857	1.100
00	0.000	0.000	0.000	0.000	118.410	89.160	96.200	214.080	253.490	169.990	2.180
	4	75.680 SF	-D -			* Indicates (Observed data	U Indicates Us	er supplied da	ta.	
	4		FD -				* Indicates C All other dat	* Indicates Observed data All other data is interpreted	* Indicates Observed data. U Indicates Us All other data is interpreted from previous	* Indicates Observed data. U Indicates User supplied da All other data is interpreted from previous observed value	* Indicates Observed data. U Indicates User supplied data. All other data is interpreted from previous observed value.

Annual Total Acre Feet:

943.511 AF

Water Commissioner

Paul A. Schmucker

Annual Water Diversion Report

Division: 4

Water District: 40

Irrigation Year: 2012

(2011-11-01 To 2012-10-31)

Structure Name:

DUKE DITCH

(1847)

Source:

NATURAL STREAMFLOW

(1)

Source Stream:

BARROW GULCH

(14)

From: Use:

IRRIGATION

(1)

Type: Group:

Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1							1.070	0.800	2.500	2.600	1.000*	1.000
2							1.070	0.800	2.500	2.600	1.000	1.000
3							1.070	0.800	2.500	2.600	1.000	1.000
4						**	1.070	0.800	2.500	2.600	1.000	1.000
5							1.070	0.800	2.500	2.600	1.000	1.000
6							1.070	0.800	2.500	2.600	1.000	1.000
7							1.070	0.800	2.500	2.600	1.000	1.000
8							1.070	0.800	2.500	2.600	1.000	1.000
9					5		1.070	0.800	2.500	2.600	1.000	1.000
10							1.070	0.800	2.500	2.600	1.000	1.000
11							1.070	2.500 *	2.500	2.600	1.000	1.000
12							1.070	2.500	2.500	2.600	1.000	1.000
13						10	1.070	2.500	2.500	2.600	1.000	1.000
14							1.070	2.500	2.500	2.600	1.000	1.000
15							1.070	2.500	2.500	2.600	1.000	1.000
16							1.070	2.500	2.500	2.100*	1.000	1.000
17							0.800 *	2.500	2.500	2.100	1.000	1.000
18					Ÿ		0.800	2.500	2.500	2.100	1.000	1.000
19							0.800	2.500	2.600 *	2.100	1.000	1.000
20							0.800	2.500	2.600	2.100	1.000	1.000
21							0.800	2.500	2.600	2.100	1.000	1.000
22							0.800	2.500	2.600	2.100	1.000	0 *
23							0.800	2.500	2.600	2.100	1.000	
24							0.800	2.500	2.600	2.100	1.000	
25	8						0.800	2.500	2.600	2.100	1.000	
26							0.800	2.500	2.600	2.100	1.000	
27							0.800	2.500	2.600	2.100	1.000	
28							0.800	2.500	2.600	2.100	1.000	
29							0.800	2.500	2.600	2.100	1.000	
30						1.070*	0.800	2.500	2.600	2.100	1.000	
31							0.800		2.600	2.100	1.000	
SFD:	0.000	0.000	0.000	0.000	0.000	1.070	29.120	58.000	78.800	72.600	30.000	21.000
Jsed:	0	0	0	0	0	1	31	30	31	31	30	21
FD:	0.000	0.000	0.000	0.000	0.000	1.070	0.939	1.933	2.542	2.342	1.000	1.000
AF:	0.000	0.000	0.000	0.000	0.000	2.120	57.760	115.040	156.300	144.000	59.510	41.650
al Total SF	FD:		290.590 SF[)			* Indicates	Observed data	U Indicates U	ser supplied dat	a	
Days Use	d:		175 DA				All other da	ata is interpreted	from previous	observed value),	
al Total Ac			576.385 AF				2					

Report Date: 2016-01-11

Page 1 of 3

Paul A.Schmucker

HydroBase Refresh Date: 2015-08-24

Annual Water Diversion Report

Division: 4

Water District: 40

Irrigation Year: 2013

Structure Name:

(2012-11-01 To 2013-10-31)

Source Stream:

DUKE DITCH

Source:

NATURAL STREAMFLOW

(1)

BARROW GULCH

(1847)(14)

From: Use:

IRRIGATION

(1)

Type:

Group:

	Day	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	1					1	2		0.670	2.700*	2.700	4.060	2.000
	2								0.670	2.700	2.700	4.060	2.000
	3			4)					0.670	2.700	2.700	4.060	2.000
	4								0.670	2.700	2.700	4.060	2.000
	5							100	0.670	2.700	2.700	4.060	2.000
	6								0.670	2.700	2.700	4.060	2.000
	7								0.670	2.700	2.700	4.060	2.000
	8								0.670	2.700	2.700	4.060	2.000
	9								0.670	2.700	3.290*	4.060	2.000
	10								0.670	2.700	3.290	4.060	2.000
	- 11		28			<i>i</i>			0.670	2.700	3.290	4.060	2.000
	12								0.670	2.700	3.290	4.060	2.000
	13								0.670	2.700	3.290	4.060	2.000
	14								0.670	2.700	3.290	4.060	2.000
	15							0.670 *	0.670	2.700	3.290	4.060	2.000
	16							0.670	0.670	2.700	3.290	4.060	2.000
	17							0.670	0.670	2.700	3.290	4.060	2.000
	18							0.670	0.670	2.700	3.290	4.060	2.000
	19							0.670	0.670	2.700	3.290	4.060	2.000
	20							0.670	0.670	2.700	3.290	4.060	2.000
	21							0.670	0.670	2.700	3.290	4.060	2.000
	22				*			0.670	0.670	2.700	3.290	4.060	2.000
	23							0.670	0.670	2.700	3.290	4.060	0.750 *
	24							0.670	0.670	2.700	3.290	2.000*	0.750
	25							0.670	0.670	2.700	3.290	2.000	0.750
	26							0.670	0.670	2.700	3.290	2.000	0.750
	27							0.670	0.670	2.700	3.290	2.000	0.750
	28							0.670	0.670	2.700	4.060*	2.000	0.750
	29							0.670	0.670	2.700	4.060	2.000	0.750
	30							0.670	0.670	2.700	4.060	2.000	0.750
	31							0.670		2.700	4.060	2.000	0.750
To	tal SFD:	0.000	0.000	0.000	0.000	0.000	0.000	11.390	20.100	83.700	100.350	107 200	
	ys Used:	0	0	0	0	0	0	17.030	30	31	31	107.380	50.000
	g SFD:	0.000	0.000	0.000	0.000	0.000	0.000	0.670	0.670			30	30
		050/705.50		500	0.000	0.000	0.000	0.070	0.070	2.700	3.237	3.579	1.667
Tot	tal AF:	0.000	0.000	0.000	0.000	0.000	0.000	22.590	39.870	166.020	199.040	212.990	99.180
Ar	nual Total S	SFD:	3	72.920 SF[)			* Indicates	Observed data	. U Indicates Us	ser supplied da	ta.	
To	otal Days Us	ed:		169 DA				All other da	ta is interprete	d from previous	observed valu	e.	
	nual Total A		7	39.687 AF		, , , , 5							
				7.1		0.00		Water Com	missioner	- 1-			

Annual Water Diversion Report-

Division: 4

Water District: 40

Irrigation Year: 2014

(2013-11-01 To 2014-10-31)

Structure Name:

DUKE DITCH

(1847)

Source:

NATURAL STREAMFLOW

(1)

Source Stream:

BARROW GULCH

(14)

From:

IRRIGATION

(1)

Use: Type:

Group:

Day	Nov	Dec	Jan	Feb	N	lar Apr	May	Jun	Jul	Aug	Sep	Oct	
1							0.800	0.640	2.500	2.850	3.200	4.750	7 1
2							0.800	0.640	2.500*	2.850	3.200	4.750	2
3				9.7			0.800	0.640	2.500	2.850	3.200	4.750	3
4							0.800	0.640	2.500	2.850	3.200	4.750	4
5							0.800	0.640	2.500	2.850	3.200	4.750	5
6							0.800	2.500 *	2.500	2.850	3.200	1.000 *	6
7							0.800	2.500	2.500	2.850	3.200	1.000	7
8							0.800	2.500	2.500	2.850	3.200	1.000	8
9							0.800	2.500	2.500	2.850	3.200	1.000	9
10							0.800	2.500	2.500	2.850	3.200	1.000	10
11							0.800	2.500	2.500	2.850	3.200	1.000	11
12							0.800	2.500	2.500	2.850	3.200	1.000	12
13							0.800	2.500	2.500	3.200*	3.200	1.000	13
14							0.640 *	2.500	2.500	3.200	3.200	1.000	14
15							0.640	2.500	2.500	3.200	3.200	1.000	15
16							0.640	2.500	2.500	3.200	3.200	1.000	16
17							0.640	2.500	2.500	3.200	3.200	1.000	17
18							0.640	2.500	2.500	3.200	4.750*	1.000	18
19							0.640	2.500	2.500	3.200	4.750	1.000	19
20							0.640	2.500	2.500	3.200	4.750	1.000	20
21							0.640	2.500	2.500	3.200	4.750	1.000	21
22						0.80		2.500	2.500	3.200	4.750	1.000	22
23						0.80	0.640	2.500	2.500	3.200	4.750	1.000	23
24						0.80	0.640	2.500	2.500	3.200	4.750	1.000	24
25						0.80	0.640	2.500	2.500	3.200	4.750	1.000	25
26						0.80	0.640	2.500	2.500	3.200	4.750	1.000	26
27						0.800	0.640	2.500	2.500	3.200	4.750	1.000	27
28						0.800		2.500	2.850*	3.200	4.750	1.000	28
29						0.800		2.500	2.850	3.200	4.750	1.000	29
30						0.800	0.640	2.500	2.850	3.200	4.750	0 *	30
31							0.640		2.850	3.200			31
Total SFD:	0.000	0.000	0.000	0.000	0.0	7.200	21.920	65.700	78.900	95.000	116.150	47.750	
Days Used:	0	0	0	0		0 9		30	31	31	30	29	
Avg SFD:	0.000	0.000	0.000	0.000	0.0	0.800		2.190	2.545	3.065	3.872	1.647	
Total AF:	0.000	0.000	0.000	0.000	0.0	00 14.280	43.480	130.320	156.500	188.430	230.380	94.710	

Annual Total SFD:

Total Days Used: Annual Total Acre Feet: 432.620

858.102

SFD

AF

191 DAYS * Indicates Observed data. U Indicates User supplied data. All other data is interpreted from previous observed value.

Water Commissioner

Paul A. Schmucker

Appendix C

NRCS Preliminary Design Report

United States Department of Agriculture



Phone: 970-874-5726 *103

Email: shanaharness@co.usda.gov

Fax: 970-874-7768

January 8, 2016

To Whom It May Concern,

The Duke Ditch Company has been approved for Federal Funding under the Basin State Program. The ditch is 2.7 miles long consisting of 2.5 miles of earthen ditch. It carries 8.7 cubic feet per second (CFS) of water from Leroux Creek and Barrow Gulch during the irrigation season.

The NRCS has been working in affiliation with this ditch company to put this project together since 2013. We discussed two primary alternatives High Density Polyethylene (HDPE) Pipe because of the terrain and digging requirements and High Pressure PVC Pipe. The Duke Ditch Company has decided to go with PVC alternative because it is lower in cost.

Preliminary engineering has been completed and we foresee the final design being completed in 2016 with construction to commence following.

This project is estimated to save 395 Tons of Salt per year from entering the Colorado River System.

Sincerely,

Shana Harness

Soil Conservationist

Duke Ditch USDA-NRCS Contract Administrator

Helping People Help the Land

Appendix D

Shareholders & Irrigated Parcels

Financial Statements and Budgets

2013, 2014, 2015

Duke Ditch Shareholders & Parcels

Agricultural Parcels

				Est.			
		Total		Irrigated		Duke	
Shareholder Name	Address	Acres		Acres		Shares	
Kelly Lyon	33309 HIGHWAY 92	107.1		80.3	75%	2	
Hotchkiss Ranches Inc	RIVERSIDE DR	92.1		87.5	95%	24	
Hotchkiss Ranches Inc	601 SHEPERDS LN	1.4		1.3	95%		
Hotchkiss Ranches Inc	CEDAR DR	0.4		0.4	95%		
Hotchkiss Ranches Inc	MAPLE DR	10.1		9.6	95%		
John A Hotchkiss	619 SHEPHERDS LN	10.0		9.5	95%		
Hotchkiss Ranches Inc	CEDAR DR	13.5		12.8	95%		2
James Hopper	484 DUKE HILL RD	16.7		15.8	95%	6	
James Hopper	484 DUKE HILL RD	1.8		1.7	95%	-	
Rosemary Bilchak	410 DUKE HILL RD	13.2		12.5	95%	9	
Rosemary Bilchak	410 DUKE HILL DR	6.5		6.2	95%		
Julie Cunningham	568 CEDAR DR	11.7		9.9	85%	7	
Scott Kolb	503 N 2ND ST	8.1		7.7	95%	6.66	
	Total Agricultural Acres	292.5	80%	255.3	88%	54.7	68%
	Residential Acres	72.3	20%	36.1	12%	25.3	32%
	Total Acres	364.7		291.4		80.0	3=70

Residential Parcels

Shareholder Name	Address	Total Acres	Est. Irrigated Acres	Duke Shares
Willow Heights Irrigation Co.	Willow Heights	40.4		17
Brian Matus	553 CEDAR DR	4.0	*	
Gordon Cole	417 WILLOW DR	4.1	÷	
	Town of Hotchkiss	2.0		
Gary Basher	Northridge Meadows	13.5		4
Brandon Luna	626 CEDAR DR	4.0		1
Pecas McLellan	542 N. 2nd ST	0.66		0.33
Scott Wilson	682 CEDAR DR	1.5		1
Mike McMillan	618 CEDAR DR	. 0.5		1
Brian Cambria	509 CEDAR DR	1.6		1
		72.3	36.1	50% 25.3

nt au Dut-Ditalo Co 2011	5 55	0	Part
Date ex# Duke Ditch Co, 201. 1/20/15 559 U.S.P.O. 2/25/15560 Hotch Kiss Senior Citizens	10	1017	dertified etter
26-1-1-11+14-C-104	18	57	Stamps
925/15/560 Horch/Sist Senior Cilizens	15	00	meeling room real
5/11/15 561 Knos Ruble	1	1	Spring ditch clean
11/15 562 Enos Kuble	127	1	clear hol-gete
3/30/15/563 Enos Muble			clear hd-gate
TPO/15564 HotchKiss Ranches	445	00	Hydro-thal sgal.
7/21/15/565 Marley Ducle	2,000	00	Hydro-thal Sgal. Research and according ement
7/5/15566 Hotch Kiss Ranches	445	00	Hydro-That sgal.
1/3/15567 Josh Rue			ditchriding
1/3/15568 Josh Rue	1	1 1	4-wheeler rent
2/4/15569 Lewis & Co.	60	00	file porate report
	49	00	stamps
Total Paid-Out	7496	50	stamps
	- Delivery		
2/21/15-2014 Ending Balance 10 2015 Deposits 7			
Balance \$10	84/	17	
2015 Deposits 7	925	34	
2615 Total \$18	766	51	
less 2015 Expenses 7		50	
less stamps 1/20	18	39	
1/7/16 2015 End 11 Balance	251	62	
Balance	The state of the s		
	•	1	

84-6485377

Dato ck#	Duke Ditch Co. 201	4 F	increased Booset
Date ck# 1/10/14/549	U.S.P.O.	9/60	Stamp
2/18/14550	Hotch Kiss Seniors	15 00	Stamps Room Rent
5/5/14 551			Spring Work
10/28/14 552		- 11	Clean Hd Qute
8/5/14 553	1/	11.	HydroThal 5 gal
10/7/14 554			Clean Hd Gate
10/8/14 555	01 00 111	11	4wheeler rent
0/7/14 556	1 1 1 1 1 1 1	CONTRACTOR OF THE PARTY OF THE	Ditch Riding
10/8/14 55%	Lewist Co.	595	Corporate BeanT
11/6/14 558	Enos Ruble 12	7 50	Plug Hd Gate
1/28/15 559	U.S.P.O. 1	8 39	Stamps Letter
	Total Pd. Out 3 68	6 44	Plug Hd Gate Stamps Certified Stamps Letter
	2/15/14 End Bal, 623	5 21	
	2014 Deposits 831. Total 91454	2 00	
	Total 91454	7 21	
1/10/14 549	Minus Reportebin141	9 60	
	1452	7 61	
	3680	9 44	
2/21/15	Ending Bulance 1084	117	

Pate	cK#	Duke D	itch C	0=	20	13	Annual Report
18/13	540	USPO		1.	18	20	stamps
1/28	541	HotchKiss	Jeniors		15	00	meeting room
1/13	542	Enos Rub	de l				Spring work
7/2	543	HotchKiss A	anches	4	64	30	hydrothal Amine 4
/7	544	Lewis and	Co.				corporate report
4	545	HotchKissl	Panches	4	08	75	hydrothal 5gal.
2/15	546	Clifford Ci	lowers			1 1	ditch riding
9/15	547	Clifford Cl	owers	2	60	00	4 wheeler rent
1/2	548	Enos Ru	6/e	1	27	50	dam creek
10/4	549	USPO					stamps
	Tota	1 Paid Out					
* "			477	of parameter and a second	AMERICAN INCOME.	ner ten (respective)	
2 n =	2012	Ending Bo	alance	33	58	22	
(2013	Total Depo	sits	79	40	34	
	Bala	nce 20/3	1	1,2	98	56	
	201	3 Expense	· s	50	63	35	
	2/15/1	4 Balance	e 193	6,2	35,	21	



Crawford Branch
Delta Branch
Denver Branch
Fountain Branch
Hotchkiss Branch
Paonia Branch
Westcliffe Branch

392 Highway 92/ PO Box 350 Crawford, CO 81415 970-921-4122 564 Main Street, Delta, CO 81416 970-874-5322 8110 East Union Ave, Ste 125, Denver, CO 80237 303-951-4234 410 South Santa Fe, Fountain, CO 80817 719-382-5643 102 East Bridge Street / PO Box 38 Hotchkiss, CO 81419 970-872-3111 128 Grand Avenue / PO Box 597, Paonia, CO 81428 970-527-4122 102 South Adams Blvd. / PO Box 420, Westcliffe, CO 81252 719-783-9211



DUKE DITCH COMPANY C/O SCOTT KOLB P.O. BOX 488 HOTCHKISS CO 81419

12/31/15 0000256040

FINANCIAL SERVICES STATEMENT

PLUS 0 LESS 4 CURRENT STATEM NUMBER OF DAYS	R 0000256040 EMENT BALANCE AS OF (DEPOSITS AND OTHER CHECKS AND OTHER DI ENT BALANCE AS OF 12 IN THIS STATEMENT I	CREDITS EBITS 2/31/15		12,058.79 .00 809.00 11,249.79	ē
*** CHECK TRAN	SACTIONS ***		 		
	DATE AMOUNT		ATE	AMOUNT	
	.1/09 460.00 .1/09 240.00		2/08 2/09	60.00	-

Appendix E

Economic Analysis

Duke Ditch Financial Analysis

		2013	2014	2015	3 YR Total
Income		7940.34	8312	7925.34	24177.68
Expense		5063.35	3686.44	7496.5	16246.29
Income/Expense Ratio		157%	225%	106%	149%
Projected, with project					
Income		7925.34		100	
Expense		7323.34			
2015 Expenses		7496.5	7496.5		
Ditch clean					*
Hydrothol		-3570	-3570		
		-890	-890		
Loan Payment		4378		8	
Projected Expense		7414.5	3036.5		
Davience /Funance with water		4.070/			
Revenue/Expense, with project		107%			3
Revenue-Expense/debt service		112%			
		112/0			
Cash Reserve Ratio	10)				
Without Project		150%			
With Project		152%			
Annual Cost per AF					
Without Project	\$	3.09			
With Project	\$	3.06			

Duke Ditch Piping Project Cost/Benefit Analysis

•	Total Project	:	State Funds
Total Costs, PV	\$ 754,857	\$	190,000
Amortized Cost (*.04168) 50 year project life @ 2015 Federal planning rate of 3.375%	\$ 31,462	\$	7,919
Benefits			
Salt, 395 tons/year @ \$300/ton	\$ 118,500		
Annual maintenance reduction	\$ 4,460		
Total Annual Benefits	\$ 122,960	\$	119,360
Benefit/Cost Ratio	3.9		15.5

Appendix F

CWCB Loan Application



Water Project Loan Program

Department of Natural Resources

Application Type							
Prequalification (Attach 3 years of fi	inancial statements)	Loan Approval (Attach Lo	oan Feasibility Study)				
Agency/Company Information		The state of the s	out reasisting study)				
Company / Borrower Name: The Dul	ke Ditch Company						
Authorized Agent &Title: Scott Koll	o, secretary/treasu	ırer					
Address: PO Box 488, Hotchkiss, Co	O 81419						
Phone: (970) 872-3380	Email: NA						
Organization Type: Ditch Co,	District, Municir	pality	Incorporated? YES				
□ other:			□ NO				
County: Delta		Number of Shares/Taps:					
Water District: Div. 4, District 40		Avg. Water Diverted/Yr					
Number of Shareholders/Customers	Served: 11		Share \$100 (Ditch Co)				
	4	1	oill \$ (Municipality				
Contact Information			(Marielpatic)				
Project Representative: Marley Duc	lo						
Phone: (970) 234-4780	Email: m.duclo@t	ds.net	4				
Engineer: NRCS Delta Field Office							
Phone: (970) 872-5726	Email: shana.har	rness@co.usda.gov					
Attorney:	Attorney:						
Phone: ()	Email:						
Project Information							
Project Name: DUKE DITCH PIPELINI	E PROJECT						
Brief Description of Project: (Attach	separate sheets if	needed)					
The Duke Ditch Company plans to pipe	the entire 2.7 miles	s of their open, earthen ditch	. Three inlet structures and				
Four division outlet structures are in	cluded in the proje	ect design. The project ha	as been preliminarily				
Designed by the Delta NRCS office th							
8.8 cfs from Leroux Creek and Barro	w Gulch just west	of Hotchkiss in Delta Coun	ty.				
Other costs include NEPA compliance	e & wildlife habitat	t replacement					
General Location: (Attach Map of Are	ea) Duke Ditch lie	es just northwest of the to	wn of Hotchkiss in				
In Delta County.			-				
Estimated Engineering Costs: \$47,48	37 (NRCS in-kind)	Estimated Construction C	osts: \$ 663,947				
Other Costs (Describe Above): \$53,42	23 (NRCS in-kind)	Estimated Total Project (Costs: \$ 754,857				
Requested Loan Amount:		Project Start Date(s)					
(Limit 90% of Total Project Costs) \$ Signature	90,000	Design: Feb 2016 Co	onstruction: October 2016				
3ignature		Return to: Finance Section	n Attn: Anna Mauss				
Λ		1313 Sherman St					
Alast Illa	. / 1	Denver, CO 8020 Ph. 303/866.344					
Thou Lian	1/28/16	e-mail: anna.ma					
Signature / Title	Date						