SOAH DOCKET NO. 473-17-0119.WS
PUC DOCKET NO. 46245

DIRECT TESTIMONY AND WORKPAPERS
OF NELISA HEDDIN

WBRG-1I
Excerpts from DDU Rate Change Application
(December 8, 1997)

44056

TNRCC

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

File No. RECEIVED

Effective Date 2015 JAN -6 AM 7:20

PUBLIC UTILITY COMMISSION FILING CLERK

RATE/TARIFF CHANGE APPLICATION
Water and Sewer Utilities

1. Applicant Double Diamond Utilities Co. (Utility Name) is a(n):

☐ Individual ☒ Corporation 302080 (Charter Number) ☐ Member Owned WSC

☐ Partnership ☐ Other Non-Profit Corporation ☐ Sub Chapter-S Corporation

☐ Other, please explain

Business Address 3500 Maple Ave., Suite 1400 (Street address must be entered here - P. O. Box may also be entered) Business Telephone (214)-526-9801 (Area Code-Number)

Dallas (City) Dallas (County) Texas (State) 75219 (Zip Code)

Contact Person: Randy R. Gracy (Name of Person to be Contacted) (214)-526-9801 (Area Code-Telephone Number)

3500 Maple Ave., Suite 1400 (Address) Dallas, (City) Texas (State) 75219 (Zip Code)

2. List the complete schedule of the present rate structure or applicable tariff provision, including membership, tap, and reconnect fees, etc., if any.

Exhibit " A "

3. List the proposed rate structure or tariff change and the percentage increase in gross revenue that the utility expects the proposed rates structure to furnish as opposed to that furnished by the existing rate structure. (Items shown in 2 above not being changed should be listed again as unchanged.) 20 % increase water
500 % increase sewer

Exhibit " B "

4. On what date does Applicant intend the proposed rate structure or tariff change to take effect? Jan. 10, 19 98. (Please note: The date must be at least thirty days after the date the application is filed with the Texas Natural Resource Conservation Commission and the date notice is mailed to customers in order to satisfy the statutory notice requirements.

5. Applicant [X] (has) [ ] (has not) been granted a certificate of convey[illegible]e and necessity:
CertificateNo. 2070 [illegible]nd 12087

6. In which county or counties does Applicant serve? Palo Pinto, Hill, Henderson

Please list each subdivision affected by this rate change: White Bluff, The Cliffs, and Oakwood Subdivisions

7. Does Applicant serve within the corporate or town limits of any municipality?

X No
____ Yes If yes, which municipality or municipalities? ____

If yes, how many of Applicant's Customers are located within such limits? ____

If yes, has Applicant filed a concurrent petition to change its rates with the governing body of the municipality or municipalities?

____ Yes
____ No If No, explain ____

8. How many customers do you *presently* have in each of the following classes:

Residential CL 22 WB 182 OW 62 Industrial ____ Commercial Business CL 24 WB 28

Cities ____ Others (Please Explain) Sewer CL 44 WB 172 OW 0 = 216

Total Number Water customers= 318 Sewer customers = 216

9. Determine a *Test Period* (the most recent 12-month period for which representative operational information is available ending less than 12 months before the date of the application is filed with the Commission.)

The *Test Period* twelve (12) months ended December 31, 19 96
The preceding twelve (12) month period ended December 31, 19 95

10. Please list below the licensed operators employed by the utility, and current level of certification (A, B, C, or D), and average hours.

Name	Level of Certification	Weekly Hours Worked
Bill Oliver	"C" Water / "C" Sewer	40
Burnie Western	"C" Water	40
Wayne Kunkle	"D" Water / "D" Sewer	40
Kerry Locke	"D" Water	40
Ron Cannon	"D" Water / "D" Sewer	40

12. Complete Schedule B-1 and B-2.

SCHEDULE B-1 - BALANCE SHEET - ASSETS

The amounts entered should only be actual recorded amounts. If the amounts are allocated between water and sewer or between the utility and another business, provide the Commission with the allocations and method used to allocate. **Do not enter estimated or budgeted amounts.**

		Date: Jan , 1996 Beginning of Test Year	Date: Dec. , 1996 End of Test Year
FIXED ASSETS			
Utility plant (original cost when placed in service)	a	1,173,977.00	1,515,000.00
Less: Accumulated depreciation	b	(458,031.00)	(341,081.00)
TOTAL UTILITY PLANT (a - b)	c	715,946.00	1,173,919.00
Non-Utility plant	d		
Less: Accumulated depreciation	e		
TOTAL NON-UTILITY PLANT (d - e)	f		
Construction work in progress	g		
Plant acquisition adjustment (positive or negative)	h		
Less: Accumulated amortization of plant acquisition adjustment	i		
Net unamortized plant acquisition adjustment (h - i)	j		
CURRENT ASSETS			
Cash in bank	k	4250.42	6145.93
Petty cash	l		
Cash reserve account	m		
Material and supplies (inventory)	n		
Accounts receivable	o		
Less: Allowance for uncollectables	p		
Other _____	q		
TOTAL CURRENT ASSETS (k through q)	r	4250.42	6145.93
DEFERRED ASSETS			
Prepaid insurance	s		
Other _____	t		
TOTAL DEFERRED ASSETS (s + t)	u		
TOTAL ASSETS (c+f+g+j+r+u)	v	720,196.42	1,180,064.93

SCHEDULE B-2 - BALANCE SHEET - LIABILITY AND CAPITAL

		Date: Jan. , 1996 Beginning of Test Year	Date: Dec. , 1996 End of Test Year
CAPITAL			
Ownership equity (Sole Proprietorships or Partnerships only)	a		
Shareholders investments (Sub Chapter-S)	b	634,993.36	877,064.93
Members investments (Cooperative only)	c		
Common stock (Corporations only)	d		
Retained earnings	e		
Other	f		
TOTAL CAPITAL (a through f)	g	634,993.36	877,064.93
LONG-TERM LIABILITIES			
Notes payable (Schedule B-4)	h		293,000.00
	i		
TOTAL LONG-TERM LIABILITIES (h + i)	j	0	293,000.00
CURRENT LIABILITIES			
Accounts payable	k		10,000.00
Notes payable (mature in less than 1 year) (Schedule B-4)	l	85,203.06	0
Customer deposits	m		
Taxes payable	n		
Other current and accrued liabilities	o		
TOTAL CURRENT LIABILITIES (k through o)	p	85,203.06	10,000.00
DEFERRED LIABILITIES			
Accumulated deferred income taxes	q		
Accumulated deferred investment tax credits	r		
Other	s		
TOTAL DEFERRED LIABILITIES (q through s)	t		
CONTRIBUTIONS IN AID OF CONSTRUCTION	u		
TOTAL CAPITAL AND LIABILITIES (g+j+p+t+u) (Should agree with Total Assets)	v	720,196.42	1,180,064.93

16. Construction and Expansion Program - Please explain fully:

a. Have you made a water service demand forecast, and do you have a proposed expansion project of program related to this forecast (projection)?

Yes X No _____ If yes:

(1) What is the population projection?

We are at the engineering stage for expansion of the water system at The Cliffs.

(2) What is the growth potential for your area in the next two years; what factors will influence it?

Continuely increased area under extensive development.

(b) What plans to you have for system expansion? Please provide a copy of the engineering report, if available.

Installation of a 50,000 GPD packaged WWTP at White Bluff. TNRCC permit #13786-002 was issued May 24, 1996. Engineering is in progress by A.N.A. Consultants of Ft. Worth, Texas for The Cliffs water expansion.

(c) Have you retained a consulting engineer to make a study or plan for your area? If so, who is the engineer (what firm)?

Yes, A.N.A. Consultants

(d) What capability do you have with your present facilities to serve future growth or demand on your system?

Upon completion of the White Bluff plant no further expansion is required to meet immediate growth needs.

(e) What construction work, if any, is in progress?

None

17. Complete Schedule B-3W. Provide an inventory and description of company facilities used and useful in providing utility service and the original cost and date of installation of each item. Please fill out the schedules on a system by system basis. If the Applicant provides sewer service, please complete Schedule B-3S.

a. Please provide documentation to support the plant items and installation dates listed on Schedule B-3W and B-3S unless they have been established in a prior rate case. Please provide documentation for plant additions since the last rate case.

DOUBLE DIAMOND, UTILITIES
3500 MAPLE AVENUE, SUITE 1400
DALLAS, TEXAS 75219

White Bluff Question #17

307 Wells
White Bluff -PWS # 1090073 -A
@) 1200' water well, 6 ½" casing, gavel packed & pressure cemented, 120 gpm ea.

311 Pump
20 hp submersible pump well "A"
50 hp submersible pump well "B"

320 Chemical feeding Equipment
a 10 lb. Per day advance gas chlorinator with accessories at well "A"
a 10 lb. Per day advance gas chlorinator with accessories at well "B"

330 Tanks
elevated storage, 110' stand pipe 10' diameter at well "A"
elevated storage, 110' stand pipe 12' diameter at well "B"

331 Distribution System
approximately 240,000 LF of potable water mains consisting of 2", 4", & 6" SDR-26 class 160 PSI PVC pipe.

The White Bluff Sewer System includes a 50,000 gpd package treatment plant and low pressure collection mains consisting of 2", 4" & 6" SPR-26 class 160 PSI PVC pipe.

DOUBLE DIAMOND UTILITIES
3500 MAPLE AVENUE, SUITE 1400
DALLAS, TEXAS 75219

The Cliffs

The Cliffs water system includes four 48" Yardney sand filters, three five Micron Eden cartridge filters, two reverse osmosis units by international Water, Inc., each with one Tonkaflow 30 hp pumps and eight 20'tubs with 4" elements (thinfilm composite membranes.) Chlorination and chemical injection with two Pulstrom injectors and three Milton - Roy injectors. Two 100,000 gallons galvanized bolted tanks. Two 40 hp Berkley pressure pumps with controls and 10,000 gallon hydorpneumatic pressure tank.

The Cliffs Sewer System included a 25,000 gpd package treatment plant and low pressure collection mains consisting of 2", 4" & 6" SDR-26 Class 160 PSI PVC Pipe.

18. Attach a summary of all complaints received and interruptions of service during the last twelve (12) months (immediately preceding the filing of this application).

19. *Water Utilities*: Attach a copy of the most recent public water system survey letter(s) from the TNRCC or its predecessor agencies, the Texas Water Commission (TWC) or the Texas Department of Health (TDH), and address all deficiencies noted in the report(s), if any.

Exhibit " E "

20. *Sewer Utilities*: Attach a copy of the applicable waste discharge permit from the TNRCC or the TWC (predecessor agency) and results of the most recent inspection. Please address all deficiencies noted in the inspection report(s), if any.

Exhibit " F "

21. List all short-term and long-term Notes Payable (debt):

SCHEDULE B-4

	Date of Issue	Date of Maturity	Outstanding Principal At End of Test Year	Interest Rate	Annual Payment Principal/Interest	Payable to Whom
1.	1/1/97	20 years 2017	293,000	10%	4898.43 29120.09	Double Diamond, Inc.
2.						
3.						
4.						
5.						
6.						
7.						
8.						
		TOTAL *	293,000		4898.43 29120.09	

22. Purpose/Use of each Loan:

Acquisition cost for Utility Systems

*Must agree with total of Notes Payable on Balance Sheet, Schedule B-2.
Long Term Notes Payable (more than one year) + Short Term (Current) Notes Payable (less than one year)

23. a. Cash [redacted]k balance as of rate filing = $ 0

b. Reserve account/time deposits as of rate filing = $ 0

24. Complete where applicable:

a. Total Water Purchased = 24,895,000 gallons during test year.

Source: = The Cliffs-Utility MGR. Bill Oliver

b. Total Water Pumped = 64,065,000 gallons during test year.

c. Total Water Billed = 63,925,783 gallons during test year.

d. Average Number of Water Customers Served = 270 for 12 months of test year.

e. Average Number of Sewer Customers Served = 128 for 12 months of test year.

f. Average per Customer Consumption 8608 gallons/month for 3/4 inch or smaller meters.

g. Is test year annual growth representative of future annual growth? x Yes ___ No

If no, explain why growth will increase/decrease in relation to the test year.
n/a

h. Average monthly consumption per customer (3/4 inch or smaller meter) for each of the two years prior to the test year = 6200 gallons per month.
= 5400 gallons per month.

Please explain the reasons for significant variations in usage over these years.

n/a

25. How many customers used less than the gallonage included in the minimum monthly bill during the months of: November 58, December 34, January 75, and February 63 ?

26. a. Test Year Water Customer Breakdown

WATER

Meter Size	Beginning Number of Customers	Customers Added During Test Year	Customers Lost During Test Year	Total No. at Year End
5/8"	148	56	2	202
3/4"	291	5	270	26
1"	7	13		20
1-1/2"	7	3		10
2"	6	7		13
(other) ___				
Dry Taps				
TOTALS	459	84	272	271

b. If sewer service is provided, attach a similar customer breakdown for sewer customers.

c. Do variations in meter size reflect variations in consumption demand? x Yes ___ No.
If no explain.

23. a. Cash [redacted] balance as of rate filing = $ _____

b. Reserve account/time deposits as of rate filing = $_____

24. Complete where applicable:

a. Total Water Purchased = _____ gallons during test year.

Source: = _____

b. Total Water Pumped = _____ gallons during test year.

c. Total Water Billed = _____ gallons during test year.

d. Average Number of Water Customers Served = _____ for 12 months of test year.

e. Average Number of Sewer Customers Served = _____ for 12 months of test year.

f. Average per Customer Consumption _____ gallons/month for 3/4 inch or smaller meters.

g. Is test year annual growth representative of future annual growth? ____ Yes ____ No

If no, explain why growth will increase/decrease in relation to the test year.

h. Average monthly consumption per customer (3/4 inch or smaller meter) for each of the two years prior to the test year = _____ gallons per month.
= _____ gallons per month.

Please explain the reasons for significant variations in usage over these years.

25. How many customers used less than the gallonage included in the minimum monthly bill during the months of: November ____, December ____, January ____, and February ____?

26. a. Test Year Water Customer Breakdown

SEWER

Meter Size	Beginning Number of Customers	Customers Added During Test Year	Customers Lost During Test Year	Total No. at Year End
5/8"	202	45	75	172
3/4"				
1"				
1-1/2"				
2"				
(other) ___				
Dry Taps				
TOTALS	202	45	75	172

b. If sewer service is provided, attach a similar customer breakdown for sewer customers.

c. Do variations in meter size reflect variations in consumption demand? _____ Yes X No.
If no explain.

31. This space is provided for explanation(s) and computation(s) of the changes reflected in Column B above. Attach additional sheets, if necessary.

Exhibit " H "

32. Complete the following schedule for net invested capital, or rate base:

Note: If both water and sewer rate or tariff changes are requested, separate schedules must be completed for each system.

Plant in service	a.	$ 1,515,000.00
Less: Accumulated depreciation	b.	(341,081.00)
Net plant in service (a-b)	c.	$ 1,173,919.00
Construction-work-in-progress	d.	$
Working cash allowance (= to 1/8 operations and maintenance)	e.	$ 21,540.00
Materials and supplies inventory	f.	$
Prepayments	g.	$
Less: Deferred federal income taxes	h.	( )
Deferred investment tax credits	i.	( )
Contributions in aid of construction	j.	( )
Net Invested Capital (Rate Base) (c+d+e+f+g-h-i-j)	k.	$ 1,195,459.00

33. Please indicate the rate of return desired on net invested capital to produce the amount requested for net operating income/return on line "t", column C in item 30. Please explain why this rate of return is appropriate for the utility.

The designed rate of return of 8% cannot be achieved with the proposed rate with the current numbers of customers.

34. If the applicant is a corporation, please provide a copy of the corporation's "Certification of Account Status" from the State Comptroller's Office. This "Certification of Account Status" can be obtained from:

Exhibit " I "

Comptroller of Public Accounts
Office Management
P. O. Box 13528, Capitol Station
Austin, Texas 78711
1-800-252-5555

35. Please provide a copy of your report for payment of the Texas Natural Resource Conservation Commission's regulatory assessment fee.

Exhibit " J "

36. Please make any additional comments you feel are necessary to support this application, including unique characteristics of the system not covered elsewhere in this application.

SOAH DOCKET NO. 473-17-0119.WS
PUC DOCKET NO. 46245

DIRECT TESTIMONY AND WORKPAPERS
OF NELISA HEDDIN

WBRG-1J
Excerpts from PFD
SOAH Docket No. 582-08-0698
(June 15, 2009)

SOAH DOCKET NO. 582-08-0698
TCEQ DOCKET NO. 2007-1708-UCR

APPLICATION OF DOUBLE DIAMOND UTILITIES, INC. TO CHANGE ITS WATER RATES AND TARIFF, IN HILL, PALO PINTO, AND JOHNSON COUNTIES, TEXAS, APPLICATION NO. 35771-R	§	**BEFORE THE STATE OFFICE**
	§	**OF**
	§	**ADMINISTRATIVE HEARINGS**

PROPOSAL FOR DECISION

I. INTRODUCTION

Double Diamond Utilities, Inc. (DDU) has filed an application to increase the rates for its retail water utility service. DDU serves three separate developments and seeks to change its rates for all three public water systems: The Cliffs in Palo Pinto County,[1] the Retreat in Johnson County,[2] and the White Bluff development in Hill County.[3]

The Executive Director (ED), the Office of Public Interest Counsel (OPIC), White Bluff Subdivision Ratepayers (WBSR), and other Protestants contend that DDU failed to meet its burden of proof to demonstrate that the proposed increase would be just and reasonable. They differ, however, on what DDU's rates should ultimately be at the conclusion of this proceeding. The ED recommends that DDU's rates should revert back to their levels before the filing of this application. WBSR, on the other hand, would roll back DDU's rates to levels lower than those previously in effect.

The Administrative Law Judge (ALJ) agrees that DDU has not met its burden of proof. There are numerous discrepancies between DDU's applications and its supporting documentation. DDU failed to demonstrate how it set its rates and how those rates were just and reasonable. DDU also failed to demonstrate how it met the regulatory criteria to allow consolidation of two of its water systems under one rate. Furthermore, DDU apparently failed to

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[1] The Cliffs water system was begun in 1993 and has 228 connections.

[2] The Retreat water system was begun in 2003 and has 48 connections.

[3] The White Bluff water system was begun in 1990 and has 553 connections.

account for developer contributions in this rate case. Along with these issues and the other numerous discrepancies between its application and its supporting documentation, the ALJ recommends that the application be denied. The ALJ also recommends that the Commission set DDU's rates at those levels existing before DDU filed its application in August of 2007. DDU should also be ordered to refund or credit to customers all sums collected since the effective date of the rates at issue in this hearing that exceeded its prior rates, plus six percent interest on the over-collections.

II. JURISDICTION

No party disputes the jurisdiction of either the Commission or the State Office of Administrative Hearings (SOAH).

III. PROCEDURAL HISTORY

On August 7, 2007, DDU filed its first application to change its rates for the water service provided under Certificate of Convenience and Necessity (CCN) No. 12087.[4] Notices of the application were mailed to DDU's customers on July 27, 2007.[5] The effective date of the increase was September 28, 2007.[6] In December of 2007, DDU submitted a new document purporting to make corrections to the August 2007 application.[7]

More than ten percent of DDU's customers filed protests by the applicable deadline. On November 14, 2007, the Chief Clerk mailed notice of a preliminary hearing to DDU. However, on November 29, 2007, SOAH issued an order requiring that the preliminary hearing be held in Hillsboro, Texas, on February 5, 2008.

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[4] DDU Exh. 30. DDU's exhibits were marked in the hearing as "App. Exh." For ease of reference and clarity, the ALJ will refer to all of DDU's exhibits as "DDU Exh." in this proposal for decision.

[5] DDU Exh. 30, pg. 36. Unless otherwise noted, all references to page numbers refer to the Bates stamped number of the exhibit, not the page number of the document itself.

[6] DDU Exh. 30, pg. 36.

[7] DDU Exh. 25.

Accordingly, the Chief Clerk mailed the revised notice of a preliminary hearing to DDU on December 13, 2007. DDU mailed the revised notice of the preliminary hearing to its customers on January 9, 2008.[8] The notice contained a statement of the time, place, and nature of the hearing; a statement of the legal authority and jurisdiction under which the hearing was to be held; a reference to the particular sections of the statutes and rules involved; and a short, plain statement of the matters asserted.[9]

On February 5, 2008, SOAH held the preliminary hearing as indicated in the notice. The following attended and were admitted as parties:

PARTY	REPRESENTATIVE
DDU	Michael Skahan
ED	Stephanie Skogen
OPIC	Eli Martinez
WBSR	Shari Heino
Jack and Sandra McCartney	Themselves
The Cliff's Subdivision Ratepayers	Todd McCall

The ALJ held the hearing on the merits on February 23-24, 2009, and all of the parties appeared and participated. The following witnesses testified in this case:

WITNESS	PARTY	SUBJECT
Kevin Shea, Vice President, Accounting	DDU	Accounting issues
Randy Gracy, President	DDU	Corporate issues
Charles Gillespie, Jr., Consultant	DDU	Application issues
Nelisa Heddin	WBSR	Application issues
Elsie Pascua, Accountant/Auditor	ED	Cost of service and revenue requirement
Brian David Dickey, General Engineering Specialist	ED	Rate design and depreciation schedules.

[8] ED Exh. D.

[9] ED Exh. D.

development would be subsidizing the newer development. This would not result in water rates that are just and reasonable for the White Bluff ratepayers.

C. Developer Contributions and the Effect on Invested Capital

In setting the rates for water service, the Commission must fix a utility's overall revenues at a level that will, among other things, "permit the utility a reasonable opportunity to earn a reasonable return on its invested capital used and useful in rendering service to the public over and above its reasonable and necessary operating expenses . . . ."[62] However, developer contributions are not included in a utility's invested capital.[63] Developer contributions are those assets paid for by the developer instead of the utility. Since the developer paid for those assets, they are not considered to be the invested capital of the utility because the utility made no investment in the asset. To the utility, the capital contributed by the developer was cost free. Therefore, developer contributions are not included in the invested capital calculation.[64]

1. Evidentiary Record

DDU did not indicate in either version of its application for test year 2006 that a portion of its assets came from developer contributions.[65] However, DDU's witness testified that developer contributions should have been noted in the application. In discussing Table III.C. of DDU's August 2007 application,[66] Kevin Shea, DDU's vice president of accounting, stated:

Q Can you read that -- that section?

A "Developer's contribution, water."

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[62] TEX. WATER CODE ANN. § 13.183(a).

[63] 30 TAC § 291.31(c)(3)(A)(iv) & (v).

[64] DDU Exh. 25, pg. 13, Table IV.E, line [F]: Developer Contributions subtracted from the sum of Net Book Value, Working Cash Allowance, and Materials and Supplies.

[65] DDU Exh. 25, pg. 11, Table III.C. and pg. 13, Table IV.E., line [E]; and DDU Exh. 30, pg. 25, Table III.C. and pg. 27, Table IV.E, line [E].

[66] DDU Exh. 30, pg. 25.

Q Can you tell me, are there any developer contributions listed here?

A No, there's not.

Q Should there be any developer contributions listed?

A There probably should be, yes. Yeah.

Q In what amount?

A I guess I don't have that number in front of me. We -- we -- we, in accounting, we didn't -- back in '06, we didn't -- the way we did our accounting back in '06 is that we didn't really account for the developer contributions in the utility department, in the utility company.

Q But -- so there should be a number there?

A Well, we do contribute -- there are assets that are being contributed, yes, by the developer.[67]

Randy Gracy, DDU's president, was questioned about the developer contributions. Mr. Gracy testified:

Q What is Double Diamond Utilities' policy on developer contributions to assets?

A The Double Diamond Utilities pays for 20 percent of the distribution and collection lines that go into the service territory of DDU.

Q And developers --

A And the developer --

Q -- contribute the remaining assets?

A Yes.[68]

Mr. Gracy went on to testify that the two applications were prepared by two different consultants and he did not know how the consultants arrived at their numbers.[69] He testified:

[67] Tr., pg. 12, ln. 13 – pg. 13, ln. 5.

[68] Tr. pg. 42, ln. 9-17.

> [Mr. Gillespie, Jr.] reviewed our books with our accounting department, and this is what they came up with. Again, not being an accountant, I relied on my accounting staff and my consultants to prepare the application, and therefore, to the best of my knowledge, in the information they provided within the application was correct.[70]

Mr. Gillespie, Jr. did not testify regarding developer contributions or the issues raised by WBSR and the ED.

DDU also entered into evidence Exhibit 26, which is a list of asset additions from 2001 through June 2006. This list shows "developer cost" for several assets, including "CL Lake pump improvements," "CL water system improvement," "RT Phase 1 & 2 Water/Sewer," and "RT water well & tank."[71]

WBSR entered into evidence Exhibit 23, a document it had obtained in discovery from DDU. Exhibit 23 is a fax from Lynn Robertson, the former vice president of accounting for DDU to Charles Gillespie, III, the son of Charles Gillespie, Jr., DDU's consultant on this application. The fax indicates that there were $930,547 worth of developer contributions for the White Bluff and the Cliffs water systems.[72] This exhibit also shows that for the "WB" and "CL" water systems,[73] there were $249,153.86 in developer contributions in aid of construction in 1998.[74]

WBSR also entered into evidence pages from DDU's subsequent application for a rate change dated October 24, 2008.[75] In this subsequent, pending application, DDU

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[69] Tr. pg. 45, ln. 11-14.

[70] Tr. pg. 45, ln. 19-25.

[71] DDU Exh. 26.

[72] WBSR Exh. 23, pg. 2.

[73] The ALJ assumes that "WB" and "CL" references the White Bluff and the Cliffs systems, respectively.

[74] WBSR Exh. 23, pg. 3 and 4.

[75] WBSR Exh. 24.

listed $1,904,489 in developer contributions.[76] The ED provided additional documents from DDU's October 2008 rate change application.[77] These documents show the installation dates for the developer contributed water assets that comprise the $1,904,489 contribution.[78] The vast majority of these installation dates of these developer contributed assets preceded the 2006 test year that is the subject of this proceeding.

2. DDU's position

DDU offered no evidence on rebuttal regarding this issue. Furthermore, DDU made no argument in either its closing or its response to closings to address the issue of developer contributions.

3. WBSR's position

WBSR identified this lack of accounting for developer contributions as one of many inaccuracies in DDU's application.[79] WBSR introduced exhibits indicating that DDU should have shown developer contributions in both its August and December 2007 applications. According to WBSR, DDU failed to meet its burden of proof because of this and other omissions.

4. OPIC's position

OPIC pointed out that there is credible evidence in the record that $1.9 million in developer contributions were included in the DDU's October 2008 application that are "noticeably" not included in this application.[80]

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[76] WBSR Exh. 24, pg. 2, Table III.C.

[77] ED Exh. 4.

[78] ED Exh. 4, "Att. 6" (noted in upper right hand corner of document).

[79] WBSR Closing, pg. 7.

[80] OPIC Closing, pg. 5.

5. ED's position

The ED recognized that DDU did not list any developer contributions in its August 2007 application. The ED states that DDU's subsequent October 2008 application shows $1,904,489 in developer contributions with a majority of the assets installed before the filing of the August 2007 application that is the subject of this proceeding. According to the ED, "[t]his means that in this case, DDU has possibly included items in its rate base that were paid for with developer contributions."[81]

6. The ALJ's analysis

DDU had ample opportunity to clarify this issue in its rebuttal case or in its closing arguments and responses. There is credible evidence in the record, including testimony from DDU's own witness, that some portion of the amount DDU claims as invested capital came from developer contributions, which should be shown in the December 2007 application. The October 2008 rate change application lists $1.9 million in developer contributions with installation dates for assets dating back to 1990.[82] Some of the assets are listed on both the developer contribution list from the October 2008 application and in DDU's December 2007 application. The record does not show whether the amounts listed in DDU's December 2007 application depreciation schedule include or exclude the developer contributions shown in the October 2008 application.

DDU is claiming a total invested capital of $1,840,362 in its December 2007 application.[83] The ALJ doubts the accuracy of these representations given that a year later, DDU filed another rate change application showing $1.9 million in developer contributions for many assets that were installed prior to the 2006 test year. Given the potential magnitude of the discrepancy and the lack of evidence to the contrary, the ALJ is of the opinion that the accuracy

[81] ED Closing, pg. 14.

[82] ED Exh. 4, "Att. 6."

[83] DDU Exh. 25, pg. 13.

of DDU's calculations of its invested capital is suspect. Invested capital is a major component in setting just and reasonable rates. The ALJ cannot conclude that the rates DDU has requested are just and reasonable and DDU has failed to meet its burden of proof in this regard. On this basis alone, the ALJ would recommend that DDU's application be denied.

D. General Concerns with DDU's Application

In addition to the major issues already discussed, the ALJ has several concerns with DDU's application and the presentation of its case. A major concern is with the accounting documents provided by DDU in its exhibits. DDU's accounting methods do not separate expenses and assets for the water system from those attributable to the companion wastewater system. When asked if the detailed trial balances included costs for both the water and wastewater systems, DDU's Vice President testified that "Yeah. We – the way we account for everything is that the – each – each development has their own department number,[84] so everybody has their unique department number. That's how we account for all the expenses and revenues and things like that, is by the department. . . ."[85] Therefore, DDU's accounting documents entered into evidence in its water rate case contain entries for both the water and wastewater systems. This approach made it difficult to use DDU's financial exhibits to support its application to change its water rates.

Furthermore, DDU did not show how exhibits 1 through 26 correspond to the entries in its applications. While Mr. Shea sponsored the financial exhibits, he did not match his exhibits to the entries in the application. As will be discussed below, few of the amounts in the exhibits matched the entries in the application. Also, neither Mr. Gillespie, Jr. nor Mr. Gracy attempted to reconcile the financial documents and invoices in the two 5-inch binders containing the exhibits with either of the two applications.

---

[84] The Retreat development has department number 6090; the Cliffs, 8090; and White Bluff, 9090. DDU Exh. A., pg. 1, ln. 20-29, pg. 2, ln. 27-28.

[85] Tr., pg. 18, ln. 15-25.

SOAH DOCKET NO. 473-17-0119.WS
PUC DOCKET NO. 46245

DIRECT TESTIMONY AND WORKPAPERS
OF NELISA HEDDIN

WBRG-1K
Excerpts from Direct Testimony of Chris Ekrut
SOAH Docket No. 582-09-4288

SOAH DOCKET NO. 582-09-4288

TCEQ DOCKET NO. 2009-0505-UCR

APPLICATION OF DOUBLE DIAMOND UTILITIES COMPANY, INC. TO CHANGE WATER RATE TARIFF FOR SERVICE IN HILL, PALO PINTO, AND JOHNSON COUNTIES	§ § § § § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

PREFILED DIRECT TESTIMONY AND EXHIBITS

OF

CHRIS EKRUT

ON BEHALF OF

DOUBLE DIAMOND UTILITIES COMPANY, INC.

MARCH 1, 2010

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Chris Ekrut. I am a Manager with J. Stowe & Co., Inc. My business address is 1300 E. Lookout Dr., Ste. 100, Richardson, Texas 75082.

Q. PLEASE OUTLINE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I received my undergraduate degree, a Bachelor of Arts with a major in Public Administration, from West Texas A&M University in 2003, graduating with honors. I then received a Master's in Public Administration from the University of North Texas in 2005, again graduating with honors. While pursuing my Master's Degree, I served as an intern with R.W. Beck, Inc. ("R.W. Beck"), and officially joined the Company in 2005 as a Consulting Analyst upon completion of my degree. I left R.W. Beck in April 2008 to join J. Stowe & Co., LLC. ("J. Stowe & Co.") as a Senior Consultant, and was promoted to Manager in December 2009. In 2009, I also received my certification as an Associate in Project Management by the Project Management Institute. My professional resume is herein included as Exhibit DDU-16.

Q. GENERALLY, WHAT DOES YOUR WORK WITH J. STOWE & CO. ENTAIL?

A. I have provided a broad range of consulting services to the utility industry, including, but not limited to:

- Cost of service and rate design studies
- Litigation support
- System valuations
- Operational and organization studies
- Socioeconomic impact analysis

Evaluation alters the allocation of expenses between the water and sewer utility, further impacting O&M expenses and the working cash allowance.

Q. CAN YOU PLEASE QUANTIFY THE IMPACT TO WORKING CASH ALLOWANCE?

A. Table 9 shows the reduction in operations and maintenance expense and the resulting reduction in the Utility's requested working cash allowance:

Table 9 –Impact to Working Cash Allowance from Asset Evaluation

	Groundwater	Surface Water	Total
Application level of O&M Expense	$ 517,955	$472,797	$990,751
Working Cash Allowance (1/8th O&M)	$64,744	$59,100	$123,844
Adjusted level of O&M Expense (based on Asset Evaluation)	$ 414,046	$ 370,099	$ 784,145
Working Cash Allowance (1/8th O&M)	$ 51,756	$ 46,262	$ 98,018
Reduction in O&M Expense	$ (103,909)	$ (102,697)	$ (206,606)
Reduction in Working Cash Allowance	$ (12,988)	$ (12,838)	$ (25,826)

Q. PLEASE EXPLAIN HOW THE LEVEL OF DEVELOPER CONTRIBUTIONS IDENTIFIED WITHIN THE APPLICATION IS IMPACTED BY THE ASSET EVALUATION PERFORMED BY DR. HARKINS?

A. It is my understanding that it has been the practice of the Utility's Parent Company to pay for 80% of the initial assets, including all distribution mains and lines, during the construction of a water and sewer system. The remaining 20% was then paid by the Utility. Beyond initial construction, all assets and maintenance are funded 100% by the Utility. To determine the appropriate level of these contributions by the parent company,

Mr. Gracy has identified those assets, subject to the 80% payment by the parent company from the asset listing produced by Dr. Harkins. This listing is presented herein as Schedule CDE-7 (Exhibit DDU-25).

Q. CAN YOU PLEASE QUANTIFY THE IMPACT OF THIS ADJUSTMENT TO DEVELOPER CONTRIBUTIONS?

A. Table 10 illustrates the total Parent Company contributed assets contained within the application as compared to the amount identified by Mr. Gracy resulting from the asset evaluation.

Table 10 – Impact of Asset Evaluation of Developer Contributed Capital

	Groundwater	Surface Water	Total
Application Value	$ 1,699,742	$ 204,747	$ 1,904,489
Adjusted Values (as identified by Mr. Gracy)	2,222,479	329,195	2,551,674
Variance	$ 522,737	$ 124,448	$ 647,185

Q. PLEASE SUMMARIZE THE UTILITY'S LEVEL OF INVESTED CAPITAL BASED ON THE RESULTS OF THE ASSET EVALUATION?

A. Table 11 below presents the requested level of invested capital in accordance with the results of the Asset Evaluation.

Table 11 –Asset Evaluation Level of Investor Supplied Capital

	Groundwater	Surface Water	Total
Net Book Value of Assets	$ 3,848,429	$ 903,947	$ 4,752,376
Working Cash Allowance	51,756	46,262	98,018
Less: Developer Contributions	(2,222,479)	(329,195)	(2,551,674)
Total Investor Supplied Capital	$ 1,677,709	$ 621,014	$2,298,720

SOAH DOCKET NO. 473-17-0119.WS
PUC DOCKET NO. 46245

DIRECT TESTIMONY AND WORKPAPERS
OF NELISA HEDDIN

WBRG-1L
Warranty Deed from Double Diamond, Inc., to White Bluff Property Owners Association (December 20, 1996)

009107

WARRANTY DEED

THE STATE OF TEXAS §
§
COUNTY OF HILL §

White Bluff

KNOW ALL MEN BY THESE PRESENTS:

That DOUBLE DIAMOND, INC., a Texas corporation maintaining its principal office and place of business at 3500 Maple Avenue, Suite 1400, Dallas, Texas 75219 (hereafter referred to as the "Grantor") for and in consideration of the sum of Ten and more Dollars and other valuable consideration, receipt of which is acknowledged, to it in hand paid by White Bluff Property Owners Association, Inc. of 3500 Maple Avenue, Suite 1400, Dallas, Texas 75219, (hereinafter referred to as the "Grantee," whether one or more) has GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY unto the said Grantee, the property described in Exhibit "A" attached hereto and made a part hereof for all purposes. Grantor specifically reserves and excepts from this conveyance all oil, gas and other minerals and mineral rights in or under the above-described property, and this conveyance is made subject to all prior easements, restrictions, covenants, conditions, reservations and rights-of-way of record.

To Have and To Hold the property described in Exhibit "A," together with all and singular the rights and appurtenances thereto in any wise belonging unto the said Grantee, Grantee's heirs, successors and assigns forever, and Grantor does hereby bind itself, its successors and assigns, to warrant and forever defend, all and singular, the said property unto the said Grantee, Grantee's heirs, successors and assigns, against every person whomsoever lawfully claiming, or to claim the same or any part thereof.

Witness the hand of Grantor this 20th day of December, 1995 .

ATTEST:

Assistant Secretary

DOUBLE DIAMOND, INC., a Texas corporation

By:
Beverly Selman, Exec. Vice President

THE STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me on this 20th day of December, 1995, by BEVERLY SELMAN, Exec. Vice President of Double Diamond, Inc., a Texas corporation, on behalf of said corporation.

Notary Public in and for the State of Texas

RETURN RECORDED DOCUMENT TO:
DOUBLE DIAMOND, INC.
3500 MAPLE AVENUE, SUITE 1400
DALLAS, TEXAS 75219

EXHIBIT "A"

WB - White Bluff Subdivision, as described in the corrected plat thereof, recorded in Slide A-130 of the Plat Records of Hill County, Texas;

WB Three - White Bluff Three Subdivision, as described in the plat, recorded in Slide 131A of the Plat Records of Hill County, Texas;

WB Four - White Bluff Four Subdivision, as described in the plat thereof, recorded in Slide 131AB and 132 A of the Plat Records of Hill County, Texas.

WB Eight - White Bluff Eight Subdivision, as described in the plat recorded in Slide 135A of the Plat Records of Hill County, Texas.

WB Twelve - White Bluff Twelve Subdivision, as described in the corrected plat recorded in Slide 137AB of the Plat Records of Hill County, Texas.

WB Seventeen - White Bluff Seventeen Subdivision, as described in the plat recorded in Slide 140AB of the Plat Records of Hill County, Texas.

WB Twenty - White Bluff Twenty Subdivision, as described in the plat recorded in Slide A-142 of the Plat Records of Hill County, Texas.

LOT/TRACT	SUBDIVISION
Tract 1	WB Three
Tract 2	WB Four
Tract 3	WB Four
Tract 4	WB Four
Lots 33, 34, 35, & 36	WB Eight
Lots 172, 173, 174 & 175	WB Eight
Lots 200 & 201	WB Twelve
Lots 36, 37 & 38	WB Seventeen
Lots 18, 19, & 20	WB Twenty

Two Tracts of land designated as "Greenbelt" on the Plat of the White Bluff Subdivision containing 3.113± acres and 4.5± acres respectively.

009107

FILED
AT 1:00 O'CLOCK P M
ON THE 28 DAY OF Dec.
A.D., 19 95.

Ruth Pelham
COUNTY CLERK, HILL CO TEXAS
BY P. Damacken
DEPUTY

STATE OF TEXAS
COUNTY OF HILL
I hereby certify that this instrument was FILED on the date and at the time stamped hereon by me and was duly RECORDED in the Volume and Page of the Official Public Records of Hill County, Texas.

Ruth Pelham
County Clerk, Hill County, Texas
BY: _____ DEPUTY

RECORDED _____

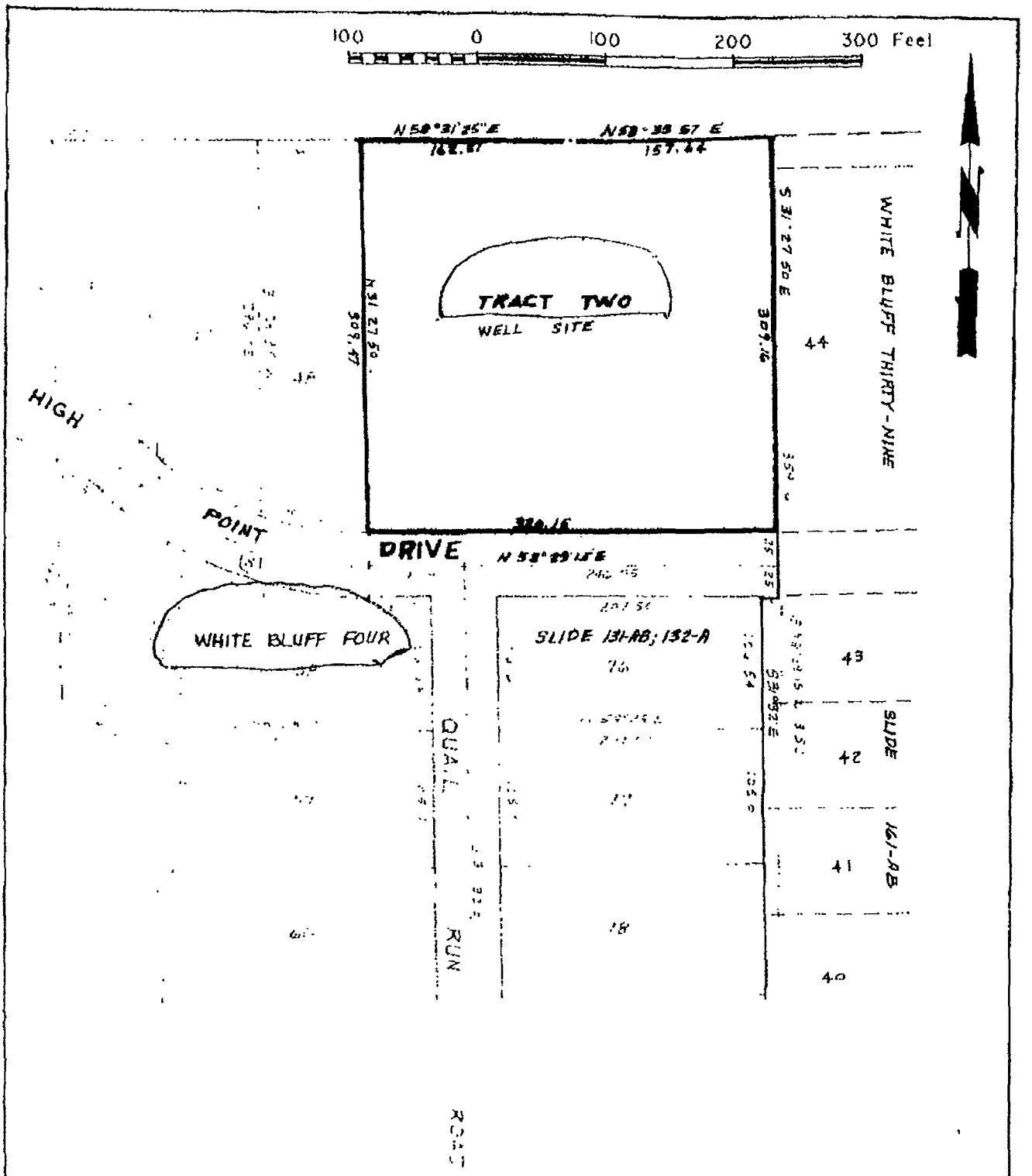

EXHIBIT "A"

WELL SITE

TRACT A, WHITE BLUFF FOUR SUBDIVISION
AS RECORDED IN SLIDE 131-AB AND 132-A,
PLAT RECORDS OF HILL COUNTY, TEXAS

WBRG000130

SOAH DOCKET NO. 473-17-0119.WS
PUC DOCKET NO. 46245

DIRECT TESTIMONY AND WORKPAPERS
OF NELISA HEDDIN

EXHIBIT WBRG-1M

Workpapers

WBRG NO. 1-15 In the 2008 Application, Double Diamond divided original cost between the developer and the utility at a ration [sic] of 80%-developer, 20%-utility for certain items of rate base. Attachment C is an Exhibit from SOAH Docket No. 582-09-4288 showing the rate base items relating to White Bluff water assets. Please explain the basis for the 80%-20% split between developer and utility and provide documentation that corresponding entries were made in the financial records of both the developer and the utility.

RESPONSE: The basis for the 80/20 separation is discussed in Mr. Randy Gracy's prefiled testimony in the referenced docket. No documentation exists that corresponding entries were made in the financial records of the developer and the utility.

Prepared and sponsored by Jay Joyce.

WBRG NO. 1-17 Please provide a full listing of all assets claimed by Double Diamond on line 2 of Schedule III-2 (WHITE BLUFF (Total)) in the amount of $6,245,596.

RESPONSE: The corrected amount is $6,639,292 in total original cost assets, which is the sum of the corrected water assets of $3,791,956 shown on line 2 of Corrected Schedule III-2 of WHITE BLUFF (Water) and the sewer assets of $2,847,336 on line 2 of Corrected Schedule III-2 of WHITE BLUFF (Sewer). The corrected listings of the water and sewer assets may be found in the Errata Work Papers. See bates DDU16-011266, DDU16-011277, and DDU16-011331 – DDU16-011339 filed in support of the application.

Prepared and sponsored by Jay Joyce.

WBRG NO. 1-18 Please provide invoices for all assets identified in response to WBRG NO. 1-17.

RESPONSE: Responsive documents have been produced. See bates DDU008999 – DDU009123, DDU16-009264 – DDU16-010453, DDU16-010994 – DDU16-011030 filed in support of the application.

Prepared and sponsored by Victoria Harkins.

WBRG NO. 1-19 Please provide proof of payment (e.g Cancelled checks) relating to the assets identified in response to WBRG No. 1-17.

RESPONSE: Cancelled checks are not available. See invoices produced in response to WBRG 1-18.

Prepared by Christie Rotramel and Victoria Harkins.

Sponsored by Tim Grout.

WBRG NO. 1-20 Please provide annual income statements for Double Diamond for 2013, 2014, and 2015.

RESPONSE: Responsive documents will be produced. See bates DDU004703 – DDU004718.

Prepared by Christie Rotramel.

Sponsored by Tim Grout.

WBRG NO. 1-21 Please provide annual income statements for Double Diamond, Inc., for 2013, 2014, and 2015.

RESPONSE: Responsive documents were previously produced as Confidential Documents pursuant to the terms of the Protective Order. See bates DDU004719 – DDU004734.

Prepared by Christie Rotramel.

Sponsored by Tim Grout.

WBRG NO. 2-16 Please provide an accounting of water tap fees received, by year, since inception, from White Bluff customers.

RESPONSE: **Responsive documents will be produced.**

Prepared by: **Christie Rotramel**

Sponsored by: **Tim Grout**

WBRG NO. 2-17 Please provide an accounting of wastewater tap fees received, by year, since inception, from White Bluff customers.

RESPONSE: **Responsive documents will be produced.**

Prepared by: **Christie Rotramel**

Sponsored by: **Tim Grout**

WBRG NO. 2-18 Admit or deny: Double Diamond is providing service within White Bluff for which it is not receiving monetary compensation. If you admit, please identify where such service is being provided, and the basis for providing service without compensation.

RESPONSE: **Deny**

Prepared by: **Christie Rotramel**

Sponsored by: **Randy Gracy**

WBRG NO. 2-19 DDU003586 provides a listing of company-wide notes payable and interest rates. There is one note for $3,000,000 that lists collateral as "utility assets." Which system's assets were pledged as collateral for the loan?

RESPONSE: **Water and wastewater utility assets located within the White Bluff Resort.**

Prepared by: **Christie Rotramel**

Sponsored by: **Randy Gracy**

WBRG NO. 3-4 Referencing Double Diamond's response to WBRG 2-19, please provide an itemized accounting of the spending of funds obtained through this loan.

RESPONSE: The requested information does not exist. This is akin to asking for an itemized list of the components of a house paid for with mortgage proceeds and another itemized list of the components of the house paid for with from the down payment. The request doesn't make sense.

The characteristics of the referenced loan were used in the applications to establish the reasonable cost of debt incorporated into the capital structure to produce an overall cost of capital for DDU which is applied to rate base to yield a reasonable return.

Prepared by: Jay Joyce

Sponsored by: Jay Joyce

WBRG NO. 3-5 Referring to Double Diamond's response to WBRG 2-24, please provide an itemized detail as to which entities would install the utility infrastructure referenced in this response.

RESPONSE: Utility infrastructure has been in installed by Double Diamond Inc (DDI), Double Diamond Properties Construction (DDPC) or Double Diamond Utilities (DDU) at various times. Before 1996, most all of infrastructure was constructed and paid for by DDI. DDPC and DDU were created in December 1996. In 1997, DDPC began paying for most of the infrastructure, and DDU paid for a few items. Payment for utility infrastructure is identified and itemized in the invoices whose bates number are referenced on the asset list previously produced. As of the 2007-2008 rate case before the Texas Commission on Environmental Quality, most of the initial utility infrastructure was completed, and DDU begin paying for all utility assets and operations. The same contractors and employees worked for each entity that paid for the infrastructure.

Prepared by: Christie Rotramel

Sponsored by: Randy Gracy

WBRG NO. 3-6 Please provide documents responsive to WBRG 2-6 in native format (excel or similar).

RESPONSE: Bates DDU16-015228 – DDU16-015231 will be produced in native format.

Prepared by: Christie Rotramel

Sponsored by: Tim Grout

WBRG NO. 3-7 Admit or deny. Attachment A is a true and accurate copy of a Warranty Deed conveying the tracts listed on Exhibit "A" from Double Diamond, Inc., to White Bluff Property Owners Association, Inc dated December 20, 1995.

RESPONSE: Admit

Prepared by: Christie Rotramel

Sponsored by: Randy Gracy

WBRG NO. 3-8 Admit or deny. The list of tracts included in Exhibit "A" in Attachment A includes Tract 2 in White Bluff Four Subdivision ("WB4 TR2").

RESPONSE: Admit

Prepared by: Christie Rotramel

Sponsored by: Randy Gracy

WBRG NO. 3-9 Admit or deny. The original cost of the tract, WB4 TR2, is included in Double Diamond's rate base as "land," as shown on DDU012745.

RESPONSE: Admit

Prepared by: Victoria Harkins

Sponsored by: Victoria Harkins

WBRG NO. 3-10 If you contend that Double Diamond owns WB4 TR2, please explain the basis for your contention.

RESPONSE: Please see the tax records previously produced as DDU16-011011-011015. DDU is the owner.

Prepared by: Victoria Harkins

Sponsored by: Victoria Harkins

WBRG NO. 3-11 Please identify all improvements on WB4 TR2.

RESPONSE: Please see the attached aerial photo.

Prepared by: Victoria Harkins

Sponsored by: Victoria Harkins

WBRG NO. 3-12 Admit or deny. Attachment B is a true and correct copy of a form Real Estate Sales Contract used to sell property in the White Bluff subdivision to purchasers.

RESPONSE: Admit

Prepared by: Christie Rotramel

Sponsored by: Randy Gracy

WBRG NO. 3-13 Please provide copies of all communications with the Texas Commission on Environmental Quality that occurred during the test year for the White Bluff systems.

RESPONSE: Responsive documents will be produced.

Prepared by: Christie Rotramel

Sponsored by: Randy Gracy

W-4

COST TRENDS OF WATER UTILITY CONSTRUCTION

SOUTH CENTRAL REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
1	**Source of Supply Plant**															
2	Collecting & Impounding Res.	305	73	77	81	86	92	100	118	131	138	144	158	177	203	220
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	69	73	79	85	92	100	119	131	137	148	166	186	203	215
9	Electric Pumping Equipment	311	81	84	89	93	96	100	122	155	174	184	192	205	222	245
10																
11																
12																
13																
14	**Water Treatment Plant**															
15	Structures & Improvements	304	69	73	79	85	92	100	119	131	137	148	166	186	203	215
16	Large Treatment Plant Equip.	320	72	76	82	90	95	100	120	139	152	159	173	189	207	226
17	Small Treatment Plant Equip.	320	73	77	83	91	95	100	122	143	157	167	182	198	219	241
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	49	53	75	82	85	100	140	159	171	172	173	178	191	208
24	Elevated Steel Tanks	330	48	55	71	80	86	100	152	183	182	183	195	206	228	250
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	79	82	88	94	96	100	133	143	150	158	168	176	193	215
28	Steel Mains	331	73	78	84	90	95	100	115	129	139	149	162	176	193	218
29	Concrete Cylinder Mains	331	77	81	84	89	95	100	115	139	144	147	157	172	188	208
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	80	82	87	95	98	100	133	150	158	166	179	192	210	229
35	Cast Iron Mains	331	85	86	90	98	99	100	145	161	166	170	182	189	206	224
36	Cement-Asbestos Mains	331	87	89	91	99	98	100	130	152	164	173	183	211	222	244
37	Steel Mains	331	71	75	82	89	96	100	118	133	146	159	174	191	211	230
38	PVC Mains	331	-	-	-	-	-	-	25	100	104	108	113	123	133	140
39	Services Installed	333	68	75	82	89	95	100	115	126	134	142	163	177	197	211
40	Meters	334	101	106	108	108	106	100	93	93	98	101	105	108	122	127
41	Meter Installations	334	71	77	84	90	95	100	116	128	136	145	158	172	191	207
42	Hydrants Installed	335	70	74	83	91	95	100	127	149	165	175	192	205	220	240
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		69	74	82	92	97	100	141	177	200	225	254	300	365	427
47	Clarifier Equipment-Installed		68	72	82	92	97	100	142	170	185	204	215	238	279	322
48	Filter Gallery Piping-Installed		73	77	84	92	97	100	125	138	145	152	163	171	186	206
49																
50																
51																
52																
53																
54																
55																
56																

DDU008196

W-4

COST TRENDS OF WATER UTILITY CONSTRUCTION

SOUTH CENTRAL REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1	**Source of Supply Plant**															
2	Collecting & Impounding Res.	305	224	229	233	233	233	232	234	238	237	230	234	243	255	266
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	217	225	230	229	229	231	233	240	245	239	241	251	264	271
9	Electric Pumping Equipment	311	260	271	277	282	284	299	311	330	349	355	368	386	428	442
10																
11																
12																
13																
14	***Water Treatment Plant***															
15	Structures & Improvements	304	217	225	230	229	229	231	233	240	245	239	241	251	264	271
16	Large Treatment Plant Equip.	320	242	257	260	263	266	272	277	288	294	297	304	309	311	318
17	Small Treatment Plant Equip.	320	258	274	277	281	284	289	296	306	312	311	318	323	326	330
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	210	182	184	181	184	196	220	216	229	253	261	248	246	250
24	Elevated Steel Tanks	330	244	197	200	198	207	219	260	268	278	285	277	249	242	252
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	227	240	239	246	241	246	254	264	267	270	272	280	289	288
28	Steel Mains	331	235	241	246	244	238	244	254	268	274	279	282	288	302	309
29	Concrete Cylinder Mains	331	222	230	232	242	246	247	258	266	272	280	284	290	296	301
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	238	247	247	250	246	249	259	269	270	272	271	276	281	282
35	Cast Iron Mains	331	227	248	249	256	249	254	264	275	277	279	281	286	294	291
36	Cement-Asbestos Mains	331	246	262	266	261	253	249	257	272	269	264	253	263	265	276
37	Steel Mains	331	250	242	238	237	238	242	254	260	262	264	265	268	267	271
38	PVC Mains	331	136	151	146	146	144	152	191	209	199	184	165	174	170	183
39	Services Installed	333	225	234	234	231	230	233	231	225	232	237	251	261	268	284
40	Meters	334	128	141	148	135	135	137	140	150	159	162	196	195	175	200
41	Meter Installations	334	222	238	244	243	247	251	256	258	264	273	282	290	297	308
42	Hydrants Installed	335	260	280	281	289	298	308	320	340	354	358	360	362	364	371
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		482	521	527	557	573	588	586	585	566	520	528	543	546	550
47	Clarifier Equipment-Installed		369	402	406	432	439	441	442	443	428	397	412	432	464	485
48	Filter Gallery Piping-Installed		216	232	230	231	229	234	240	248	249	251	254	258	264	263
49																
50																
51																
52																
53																
54																
55																
56																

DDU008197

W-4

COST TRENDS OF WATER UTILITY CONSTRUCTION

SOUTH CENTRAL REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
					1998		1999		2000		2001		2002		2003	
			1996	1997	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	**Source of Supply Plant**															
2	Collecting & Impounding Res.	305	275	281	281	284	284	288	293	296	300	306	308	311	311	311
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	277	282	283	285	292	291	296	314	320	323	325	330	333	328
9	Electric Pumping Equipment	311	450	473	485	486	499	499	523	532	531	531	516	533	534	546
10																
11																
12																
13																
14	**Water Treatment Plant**															
15	Structures & Improvements	304	277	282	283	285	292	291	296	314	320	323	325	330	333	328
16	Large Treatment Plant Equip.	320	327	339	344	347	356	359	364	366	373	380	387	394	396	397
17	Small Treatment Plant Equip.	320	338	351	358	360	368	370	376	382	389	395	400	406	408	409
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	251	255	268	268	268	268	268	270	270	275	275	275	275	275
24	Elevated Steel Tanks	330	268	273	279	283	285	288	292	300	305	314	429	429	429	429
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26																
27	Cast Iron Mains	331	292	301	302	302	305	307	310	333	337	342	347	368	370	361
28	Steel Mains	331	314	323	324	325	327	331	342	365	368	372	375	382	386	378
29	Concrete Cylinder Mains	331	308	315	318	320	323	328	331	355	382	389	394	402	405	396
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	286	293	294	296	308	300	301	314	320	323	329	340	342	338
35	Cast Iron Mains	331	295	304	305	306	309	311	314	327	331	336	342	359	360	356
36	Cement-Asbestos Mains	331	283	289	289	290	290	293	299	314	325	326	334	351	352	345
37	Steel Mains	331	276	280	281	283	311	287	284	297	303	306	311	311	313	311
38	PVC Mains	331	189	192	191	192	191	194	201	201	215	213	220	227	227	222
39	Services Installed	333	286	275	268	276	282	269	273	275	279	287	290	293	294	322
40	Meters	334	207	197	197	197	197	197	200	206	206	206	207	207	207	207
41	Meter Installations	334	314	314	315	318	323	321	326	328	336	339	344	348	351	362
42	Hydrants Installed	335	389	450	464	465	480	482	495	496	512	525	531	537	539	538
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		561	583	594	595	618	619	621	622	640	641	648	655	657	658
47	Clarifier Equipment-Installed		509	529	535	536	537	538	549	551	557	558	566	572	579	580
48	Filter Gallery Piping-Installed		265	272	275	276	283	284	289	289	297	302	311	325	328	326
49																
50																
51																
52																
53																
54																
55																
56																

DDU008198

W-4

COST TRENDS OF WATER UTILITY CONSTRUCTION

SOUTH CENTRAL REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	NARUC	COST INDEX NUMBERS													
			2004		2005		2006		2007		2008		2009		2010	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	**Source of Supply Plant**															
2	Collecting & Impounding Res.	305	331	338	347	355	356	363	367	381	383	392	389			
3																
4																
5																
6																
7	**Pumping Plant**															
8	Structures & Improvements	304	341	356	375	378	382	391	401	413	424	453	457			
9	Electric Pumping Equipment	311	547	569	604	611	620	619	639	628	640	666	679			
10																
11																
12																
13																
14	**Water Treatment Plant**															
15	Structures & Improvements	304	341	356	375	378	382	391	401	413	424	453	457			
16	Large Treatment Plant Equip.	320	405	408	422	423	433	434	443	460	484	503	531			
17	Small Treatment Plant Equip.	320	419	426	446	449	461	459	474	494	529	555	596			
18																
19																
20																
21																
22	**Transmission Plant**															
23	Steel Reservoirs	330	278	313	329	338	348	375	494	537	537	722	722			
24	Elevated Steel Tanks	330	438	481	524	524	524	596	657	657	680	866	866			
25	Concrete Reservoirs	330	-	-	-	-	-	-	-	-	-	-	-			
26																
27	Cast Iron Mains	331	365	364	388	390	417	427	452	457	476	503	548			
28	Steel Mains	331	402	420	498	495	516	525	505	505	510	582	576			
29	Concrete Cylinder Mains	331	400	408	417	420	433	438	430	432	429	436	462			
30																
31																
32																
33	**Distribution Plant**															
34	Mains-Average All Types	331	345	358	391	392	411	420	442	441	456	501	534			
35	Cast Iron Mains	331	363	359	387	389	414	422	451	455	473	503	551			
36	Cement-Asbestos Mains	331	351	355	373	376	417	425	456	457	469	480	523			
37	Steel Mains	331	319	358	402	403	404	415	425	418	429	506	516			
38	PVC Mains	331	229	230	248	249	290	291	332	327	333	336	379			
39	Services Installed	333	307	326	346	351	375	390	399	403	406	415	426			
40	Meters	334	207	207	207	207	235	248	260	262	373	373	373			
41	Meter Installations	334	361	373	383	394	403	422	429	450	453	455	479			
42	Hydrants Installed	335	545	552	565	566	574	613	619	626	639	646	672			
43																
44																
45	**Miscellaneous Items**															
46	Flocculating Equipment-Installed		692	725	771	771	824	824	831	954	1159	1358	1641			
47	Clarifier Equipment-Installed		600	602	660	660	678	678	700	833	849	872	920			
48	Filter Gallery Piping-Installed		338	334	358	358	377	380	402	403	418	435	475			
49																
50																
51																
52																
53																
54																
55																
56																

DDU008199