

DEPARTMENT OF PUBLIC SERVICE REGULATION
MONTANA PUBLIC SERVICE COMMISSION

IN THE MATTER OF the Investigation of
the Montana Public Service Commission
into whether Mountain Water Company's
rates are Just and Reasonable

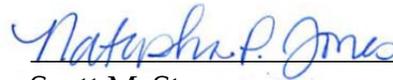
REGULATORY DIVISION

DOCKET NO. D2016.2.15

CITY OF MISSOULA'S RESPONSE TO DATA REQUESTS MWC-028 TO MWC-036

The City of Missoula, by and through its undersigned counsel, hereby submits its responses to data requests MWC-028 to MWC-036.

Dated this 24th day of March 2016.



Scott M. Stearns
Natasha Prinzing Jones
BOONE KARLBERG P.C

Jim Nugent
City of Missoula

Attorneys for the City of Missoula

MWC-028 RE: Contentions

- (a) Please state whether the City of Missoula contends Mountain Water Company's current rates are just and reasonable.
- (b) Please summarize the basis for your response to (a).

RESPONSE:

- (a) No, the City does not believe Mountain Water's rates are currently just and reasonable.
- (b) The transaction¹ to sell Mountain Water's ultimate parent company, Western Water Holdings, LLC to Liberty Utilities Co. and Algonquin Power & Utilities Corp. changed the cost of capital and other metrics used to determine the appropriate rate of return and thus the rates of Mountain Water. As such, Mountain Water's rates should be reduced to account for Liberty and Algonquin's lower cost of capital and other attributes.

¹ The City continues to dispute that the transaction to sell Western Water to Liberty was legally completed because the parties to the transaction proceeded without receiving PSC regulatory approval. Any reference to the sale in this response shall not be understood to mean the City agrees that Liberty is the proper owner of Mountain Water.

MWC-029 RE: Witness Information

Please state the name, address, and phone number of each person you have contacted as a potential witness in this matter.

RESPONSE:

The City has contacted the following as potential witnesses:

Mayor John Engen
City of Missoula
435 Ryman St.
Missoula, MT 59801
406.552.6001

Dale Bickell
City of Missoula
435 Ryman St.
Missoula, MT 59801
406.552.6001

Bryan von Lossberg
City of Missoula
522 Howell St.
Missoula, MT 59802
406.285.1857

Craig Close
HDR
8690 Balboa Avenue
Suite 200
San Diego, CA 92123-1502
858.712.8400.

MWC-030 RE: Witness Information

Please state the name, address, and phone number of each potential witness whose testimony you may offer in this matter.

RESPONSE:

The City plans to offer testimony from the individuals identified in its Response to MWC-029.

MWC-031 RE: Witness Information

With respect to each potential witness identified in MWC-030, please state the following:

- a. the subject matter on which the witness is expected to testify;
- b. a summary of the testimony the witness is expected to provided;
- c. the substance of the facts and opinions to which each expert is expected to testify;
and
- d. a summary of the grounds for the testimony and each opinion.

RESPONSE:

Mayor John Engen is expected to testify regarding:

- a. whether Mountain Water's rates are just and reasonable;
- b. based on his experience and personal knowledge, that Mountain Water's rates are not just and reasonable due to the recent corporate parent changes for Mountain Water;
- c. Mayor Engen is not being offered as an expert witness; and
- d. As Mountain Water has not answered all discovery requests, notably MCC-005 and MCC-006, and has requested protective orders for answers to other data requests, Mayor Engen's testimony has not been finalized as of yet. The City will supplement upon receipt and sufficient time to review the information from Mountain Water.

Dale Bickell is expected to testify regarding:

- a. whether Mountain Water's rates are just and reasonable;
- b. based on his experience and personal knowledge, that Mountain Water's rates are not just and reasonable due to the recent corporate parent changes for Mountain Water;
- c. Mr. Bickell is not being offered as an expert witness; and
- d. As Mountain Water has not answered all discovery requests, notably MCC-005 and MCC-006, and has requested protective orders for answers to other data requests, Mr. Bickell's testimony has not been finalized as of yet. The City will supplement upon receipt and sufficient time to review the information from Mountain Water.

Bryan von Lossberg is expected to testify regarding:

- a. whether Mountain Water's rates are just and reasonable;
- b. based on his experience and personal knowledge, that Mountain Water's rates are not just and reasonable due to the recent corporate parent changes for Mountain Water;
- c. Councilman von Lossberg is not being disclosed as an expert witness; and

- d. As Mountain Water has not answered all discovery requests, notably MCC-005 and MCC-006, and has requested protective orders for answers to other data requests, Councilman von Lossberg's testimony has not been finalized as of yet. The City will supplement upon receipt and sufficient time to review the information from Mountain Water.

Craig Close is expected to testify regarding:

- a. regarding whether Mountain Water's rates are just and reasonable;
- b. As an expert, that Mountain Water's rates are not just and reasonable due to the recent corporate parent changes for Mountain Water;
- c. As Mountain Water has not answered all discovery requests, notably MCC-005 and MCC-006 and has requested protective orders for answers to other data requests, Mr. Close's opinions and facts have not been fully informed as of yet. Mr. Close will supplement this response after Mountain Water has provided all discovery and Mr. Close has had an opportunity to review those materials and develop his opinions;
- d. See answer to (c).

MWC-032 RE: Witness Information

Please produce all documents wholly or partially relied upon by each potential witness in the formation of the potential witness's testimony in this matter, including, but not limited to, any reports, memoranda, spreadsheets or presentations prepared by any potential witness in their native format.

RESPONSE:

See Response to MWC-031, since Mountain Water has not answered relevant data requests, none of the City's witnesses have been able to finalize their testimony. Once all the information sought in data requests from the PSC, the MCC, and other entities has been provided, the City will supplement this response after it has had an opportunity to review the information provided.

MWC-033 RE: Expert Witness Information

Please produce all testimony each expert witness identified in response to MWC-030 has previously given before any regulatory, judicial or legislative agency, tribunal, or committee.

RESPONSE:

The City objects to this request in that it is overly broad, unduly burdensome, and not calculated to lead to relevant material. Further, the City does not have the burden of proof in this proceeding.

However, responding to the substance of this request, the City provides the following information:

As noted in Response to MWC-030, the City plans to only submit expert testimony from Craig Close.

Mr. Close has testified and participated in over 15 rate case proceedings (between 1988 and 2000) in California, Arizona, New Mexico, and Pennsylvania. In each of these proceedings, Mr. Close's testimony focused on justifying the rate requests and the associated capital improvements, operating and maintenance expenses, and all retirements/depreciation of assets for the four western region operating companies of American Water. Mr. Close does not have access to these pre-filed or direct testimonies as they were prepared in the course of his duties for American Water and are thus the property of American Water.

Mr. Close has also testified as an expert in the current condemnation action *City of Missoula v. Mountain Water Company, et al*, Cause No. DV-14-352 (Mont. 4th Jud. Dist.). The majority of that testimony was already been provided in Docket D2014.12.99, contained in the City's responses to Mountain Water and Liberty's data requests. However, Mr. Close's testimony in the valuation phase of that proceeding occurred after those responses were provided and that testimony is included as CITY (D2016.2.15)-000005 thru 000031.

MWC-034 RE: Expert Witness Information

For each expert witness identified in MWC-030, please produce a detailed resume of that expert's qualifications, training, publications, awards/honors received, and practical experience. As part of that resume, please include a listing of all matters on which the expert has testified, including depositions, as an expert witness in any other case, which list should include, but not be limited to the following:

- (a) The date(s) and place(s) of testifying;
- (b) The case caption(s), docket number(s), and venue(s);
- (c) The party(ies) for whom the expert testified and role of the party(ies);
- (d) The name, address, and telephone number of the attorney(s) who retained the expert in each case; and
- (e) A brief summary of the testimony given by the expert.

RESPONSE:

The City objects to this request in that it is overly broad, unduly burdensome, and not calculated to lead to relevant material. Further, the City does not have the burden of proof in this proceeding. However, responding to the substance of this request, the City provides the following information regarding Craig Close.

See CITY(D2016.2.15)-000001 thru 000004 (Close CV) attached hereto.

Mr. Close is currently employed by HDR, Inc. as the National Director of Utility Services. In that capacity, he manages and provides technical oversight for HDR's Utility Rate and Finance team which provide utility rates studies, impact fee studies, cost of service studies, utility financing support, and other utility finance services to both public and private water and wastewater utilities across the country. The Utility Rates and Finance lead who works for Mr. Close is Mr. Tom Gould who annually teaches the AWWA utility rate course across the United States.

Prior to Mr. Close's work at HDR, Inc., he was Vice President of Operations and Engineering over the American Water Work Company's western region. As the Vice President of Operations and Engineering, he was responsible for the justification of capital improvements including all adjustments to rate base as well as justification of all operations and maintenance expenses for all four American Water Work operating companies: California American Water Co., Arizona American Water Co, New Mexico American Water Co, and Hawaii American Water Company. In this role Mr. Close was responsible for the day to day operations of each operating division which included the documentation (work orders) for all capital improvements to the water systems including all retirement work orders (cost of removals, salvage value, etc.), and maintenance work orders. This documentation was used to adjust utility plant/rate base and served as the basis for the depreciation study that was submitted to the

commissions for approval to justify the depreciation rate for each asset class/utility plant account.

Mr. Close is a Professional Engineer and holds a B.S. in Civil Engineering from Swarthmore College.

Please see Response to MWC-033 regarding Mr. Close's prior testimony.

MWC-035 RE: Witness Communications

Please provide all documents, emails and/or communications provided to or received from all witnesses or potential witnesses regarding this matter.

RESPONSE:

The City joins the Montana Consumer Counsel's objection (MWC-008) regarding this question.

The City objects to this request as to Mayor Engen, Mr. Bickell, and Councilman von Lossberg on the grounds of attorney-client privilege and work product.

The City objects to this request as to Craig Close on the grounds of work product.

MWC-036 RE: Documents and Exhibits

Please provide any documents or exhibits that you plan to introduce as exhibits to testimony or at the hearing in this matter.

Response:

The City has not prepared any exhibits as of this date and will supplement if any exhibits are prepared.

CERTIFICATE OF SERVICE

This is to certify that the foregoing was duly served by mail and email upon the following counsel of record at their addresses this 24th day of March 2016:

Thorvald A. Nelson Nikolas S. Stoffel Holland & Hart LLP 6380 South Fiddlers Green Circle Suite 500 Greenwood Village, CO 80111 tnelson@hollandhart.com nsstoffel@hollandhart.com cakennedy@hollandhart.com aclee@hollandhart.com	Michael Green John M. Semmens CROWLEY FLECK PLLP P.O. Box 797 Helena, MT 59624-0797 mgreen@crowleyfleck.com jsemmens@crowleyfleck.com cuda@crowleyfleck.com cgomez@crowleyfleck.com
John Kappes President & General Manager Mountain Water Company 1345 West Broadway Missoula, MT 59802-2239 johnk@mtnwater.com	Barbara Hall Legal Director The Clark Fork Coalition P.O. Box 7593 Missoula, MT 59801 Barbara@clarkfork.org
Dennis R. Lopach, P.C. Montana Consumer Counsel 4 Carriage Lane Helena, MT 59601 dennis.lopach@gmail.com	Robert Nelson Montana Consumer Counsel Box 201703 Helena, MT 59620-1703 robnelson@mt.gov ssnow@mt.gov



Tina Sunderland



Craig Close

Water Utility Management Service Director

Craig Close is a Vice President with HDR and serves as the National Business Class Director for Management and Planning Services (MAPS) business unit. Mr. Close provides professional and project management services to municipal agencies and private companies encompassing the engineering planning, design, permitting, and construction management of unique, complex, and innovative water and wastewater infrastructure and facility projects. Mr. Close has over 28 years of engineering experience in the water, wastewater, and electrical power industries. His unique water and wastewater operational management experience provides an owner's perspective in solving increasingly challenging technical and regulatory compliance issues.

Prior to HDR, Mr. Close was an Associate Vice President and Senior Project Director for PBS&J. During his six year tenure, he successfully managed several multi-million water and wastewater projects and served as the General Manager of PBS&J's San Diego office.

Mr. Close brings a broad and diverse background to his clients that were founded from his long tenure at American Water Service Company. Prior to PBS&J, Mr. Close served as the Vice President of Operations for the Western Region Companies of American Water Works Company. Mr. Close was responsible for the day to day operation of water and wastewater utilities owned by AWWC that served over 500,000 people in 26 communities over four states. His responsibilities included the management of the technical departments that supported the district operations, which included planning engineering, construction, water quality (including the operation of two state certified laboratories), risk management, customer service and billing, and rate recovery.

EDUCATION

Bachelor of Science, Civil Engineering, Swarthmore College, 1980

REGISTRATIONS

Professional Engineer, Pennsylvania, No. PE-037296E

PROFESSIONAL MEMBERSHIPS

American Academy of Environmental Engineers

American Society of Civil Engineers

American Water Works Association

American Water Works Association, Standards Committee on Tendon-Prestressed Concrete Water Tanks

California Water Environment Association

Design Build Institute of America

National Society of Professional Engineers

Water Environment Federation

RELEVANT EXPERIENCE

Utility Purchase, Lease, and Contract Operations Contracts. During his tenure at American Water Works Service Company (AWWSC) Mr. Close was one of the company's officers responsible for water and wastewater system acquisitions, operational lease, and contract operations as part of the company regulated and non-regulated businesses. In this role he led the acquisition team or was a member of the internal due diligence team that evaluated the water/wastewater systems and operations. This would a review of all operating departments, administration and business activities, all budgets, review of all planning documents, water quality and regulatory compliance, rate filings and current rate structures, and the development of new proforma O&M and capital budgets and financial statements.

This including reviewing operations staffing levels and organizational optimization opportunities. Mr. Close was directly involved with each of the following projects and responsible for the proposal preparation and submittal to the City with presentations to the City Council. Not all of the following efforts resulted as successful acquisitions or contracts.

Water/Wastewater System Lease or Contract Operations:

- City of Westminster, CA, 40-Year Lease
- City of Chino, CA, 40-Year Lease
- City of Garden Grove, CA 40-Year Lease
- Fort Ord Reuse Authority 15-Year Contract Ops
- City of Marina, CA 10-Year Contract Ops
- City of West Covina, CA 40-Year Lease
- Otay WTP - City of San Diego, CA 5-Year Contract Ops

Asset Acquisition of Investor Owned Water/Wastewater Utility:

- Santa Margarita Water District Bond Defiance
- San Jose Water Company Stock Purchase
- Citizens Water Resources Stock Purchase
- Bishop Water Company Asset Purchase
- Ambler Park Water Company Asset Purchase
- Hidden Hills Mutual Water Co Asset Purchase

Municipal Water and Waster Agencies Optimization Experience – Bid-to-Goal Process. HDR has developed a progressive program to incentivize municipal staffs to improve their performance and cost effectiveness, called Bid-to-Goal (B2G). B2G is a proactive optimization strategy where public employees take a hard look at their operations and systems in order to produce an implementation plan that will enable them to meet accepted industry standards and benchmarks for savings and efficiency. The process generally results in a guaranteed public offering in lieu of engaging in a competitive bid versus the private sector. B2G can be implemented as a low cost, competitive, executable optimization tool on all governmental levels including municipal, state, and federal.

The B2G Process is generally broken down into six steps:

- Planning
- Statement of Work Development
- Private Market Proposal
- Employee Bid Development
- Restructure to “Most Efficient Organization”
- Enter Public Contract Operations Labor-Management Agreement

The City of San Diego Water Department, Bid-to-Goal Project. HDR has been working on the B2G process with several of the City’s different Department’s over the past 7 years. Currently Mr. Close is the Principal-In-charge for the B2G program that is being implemented for the City Water Department. The program includes coordination and interviews with key representatives from labor, management, and other divisional employees to establish and get buy-in on the required work tasks and performance metrics that are the basis of the B2G baseline. Implementation of a B2G program requires preparatory steps, which include securing staff commitment and understanding of the program, developing a detailed plan for achieving program goals, and securing commitment and support from City management, the Mayor, and

City Council. As part of the B2G program, a Private Market Proposal (PMP) will be developed as part of the competitive assessment as a basis for the employee bid. The PMP is developed based on benchmarks and HDR's industry knowledge. B2G optimization strategies are then developed for each of the Water Department Divisions. The HDR team will then assist the various water department divisions to prepare a "bid" to perform the agreed upon work tasks and performance measures that is then compiled and compared to the PMP. The cost difference between the employee bid and the PMP is the projected savings that if achieved would be shared equally with the employees and the ratepayers. To date the B2G program has saved over \$100 million in operating costs for the City of San Diego.

Utility Rate Preparation. As the Vice President of Operations for all four Western Region American Water Companies, Mr. Close was responsible for the preparation of all materials, supporting documentation, and analysis to support and substantiate the request for capital improvement funding and the operating and maintenance costs for each of the district operations. The preparation of supporting information that was provided for each rate increase included a list and description of every project, piece of equipment to be purchased (e.g. tools, trucks, valves, etc), justification of the operational need for each project, detailed cost estimates for each requested plant addition, and an alternative analysis showing that the Company was pursuing the most cost effective solution and operations.

To support the acquisition of water and wastewater utility systems, Mr. Close was responsible to the asset valuation of the utility plant assets, development of O&M costs, rate impact assessment, and the integration of O&M staff with the existing district operating staff to provide an efficient and effective combined operation that minimized the cost impact to the customer. In this capacity Mr. Close testified before the California, Arizona, and New Mexico State Public Utility Commissions (PUC) on numerous occasions to support general and project specific water utility rate cases.

Expert Witness Testimony. Roll Ranch City, LLC (2007). Mr. Close served as the expert witness providing expert technical and consulting services related to sanitary engineering issues in the Otay Mesa area of San Diego, California, on behalf of the Roll Ranch City vs. Caltrans. Mr. Close's services included testifying at deposition, but the case did not go to trial.

Sewer System Regionalization. Mr. Close, SVP HDR, served as the Principal in Charge (PIC) for the "Regionalization of Sewer System Assets Study" which evaluated the cost effectiveness of consolidating 14 satellite sewer collection systems into a single regional entity. Wastewater collection, conveyance and treatment in the Hampton Roads region in southeast Virginia are provided by multiple entities. Fourteen individual municipal entities, including the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the counties of Gloucester, Isle of Wight, and York; the town of Smithfield; and the James City Service Authority (the Localities), own and operate sanitary sewer systems that deliver flow to a regional system of interceptors, pump stations and wastewater treatment plants owned and operated by the Hampton Roads Sanitation District (HRSD).

The Hampton Roads Sanitation District (HRSD), who owns and operates a regional system of interceptors and wastewater treatment plants, and fourteen municipal entities that own and operate local sewer systems are subject to state and federal Consent Orders to address unpermitted wastewater discharges from their respective sewer systems. The Regionalization of Sewer System Assets Study evaluates the

potential cost savings for Consent Order compliance of consolidating all local sewer systems in Hampton Roads region under a single regional wastewater service provider. Results of this study show that Regionalization would be expected to provide net present value savings over 30 years of approximately \$948 million, compared to the current structure of distributed ownership and responsibility, in meeting the terms of the state and federal Consent Orders.

*City of Missoula vs.
Mountain Water Company, et al.*

*Trial Transcript, Phase 2
Vol. 6
November 6, 2015
Missoula County Cause DV-14-352*

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1 MONTANA FOURTH JUDICIAL DISTRICT COURT
MISSOULA COUNTY

2 THE CITY OF MISSOULA, a
3 Montana municipal corporation,
4 Plaintiff,
5 vs. CASE NO. DV-14-352
6 MOUNTAIN WATER COMPANY, a Dept. No. 4
7 Montana corporation; and VOLUME 6
8 CARLYLE INFRASTRUCTURE PARTNERS, LP, a Delaware Pages 1320-1659
9 limited partnership,
10 Defendants.
11 and
12 THE EMPLOYEES OF MOUNTAIN WATER COMPANY, et al.
13 Interveners.

14 Taken at the Missoula County Courthouse
15 Missoula, Montana
16 Friday, November 6, 2015
17 9:00 a.m. to 5:42 p.m.

18 TRANSCRIPT OF
19 VALUATION TRIAL, PHASE 2

20 The Honorable Karen S. Townsend presiding

21
22
23
24 Reported by Julie M. Lake, RMR, RDR, CRR
25 Martin-Lake & Associates, Inc.
406.543.6447/mla@martin-lake.com

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1 A P P E A R A N C E S

2 APPEARING ON BEHALF OF THE PLAINTIFF:

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6 Missoula, Montana 59807-9199
7 npjones@boonekarlberg.com

8 HARRY H. SCHNEIDER, JR., Esq.
9 Perkins Coie LLP
10 1201 Third Avenue, Suite 4900
11 Seattle, WA 98101

12 APPEARING ON BEHALF OF THE DEFENDANT MOUNTAIN WATER COMPANY:

13 KATHLEEN L. DESOTO, Esq.
14 Garlington, Lohn & Robinson, PLLP
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16 P.O. Box 7909
17 Missoula, Montana 59807-7909
18 klidesoto@garlington.com

19 JOE CONNER, Esq.
20 ADAM SANDERS, Esq.
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22 Suite 1800, Republic Centre
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25 jconner@bakerdonelson.com
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26 APPEARING ON BEHALF OF THE DEFENDANT CARLYLE INFRASTRUCTURE PARTNERS, LP:

27 WILLIAM W. MERCER, Esq.
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31 Billings, Montana 59103-0639
32 wwmerc@hollandhart.com

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1 I N D E X

2 WITNESS: PAGE:

3 JOSEPH D. VINSO, Ph.D. (RESUMED)

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27 DALE BICKELL

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34 Direct Examination by Mr. Schneider.....1535

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8 MARK RODRIGUEZ, ASA, MRICS

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12 LOGAN MCINNIS, P.E.

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15 Exhibit No. 71.....1589
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24 Exhibit No. 1639.....1516

25 Certificate of Court Reporter.....1659

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1 **MS. DESOTO:** Yes.
 2 **THE COURT:** All right, thank you.
 3 You may call your next witness,
 4 Ms. Jones.
 5 **MS. JONES:** The City calls Mr. Craig
 6 Close from HDR.
 7 Thereupon,
 8 **CRAIG CLOSE, P.E.**
 9 having been first duly sworn to tell the truth,
 10 testified upon his oath as follows:
 11 **THE COURT:** So try and make yourself as
 12 comfortable as you can, Mr. Close. Adjust the
 13 mike so we can hear you.
 14 Please state your full name, spell your
 15 last name for us.
 16 **THE WITNESS:** My name is Craig Close.
 17 Last name C-L-O-S-E.
 18 **THE COURT:** All right, thank you. You
 19 may inquire.
 20 **DIRECT EXAMINATION**
 21 **BY MS. JONES:**
 22 **Q.** What do you do for work?
 23 **A.** I'm an engineer by training. I work for
 24 HDR Consulting Firm and I'm the national director
 25 of our Utility Management Services Group.

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1 **Q.** How long have you been working in the
 2 field of engineering?
 3 **A.** Over 36 years.
 4 **Q.** Were you hired to assess the condition of
 5 the Mountain Water system facilities and assets?
 6 **A.** Yes.
 7 **Q.** Were you hired to compare the operations
 8 of Mountain Water Company to industry standards?
 9 **A.** Yes.
 10 **Q.** And were you also hired to analyze the
 11 replacement cost new less depreciation analysis
 12 conducted by Mr. Mantua of Black & Veatch?
 13 **A.** Yes, I was.
 14 **Q.** Did you do all those things?
 15 **A.** Yes.
 16 **Q.** And have you reached opinions related to
 17 that work?
 18 **A.** Yes, I do--yes, I have.
 19 **Q.** Before we get into the details of those
 20 opinions, can you please describe your education,
 21 training and background briefly for the
 22 commissioners.
 23 **A.** Yeah. I received a Bachelor of Science
 24 degree from Swarthmore College. And I worked at
 25 Stone & Webster originally out of school. And I

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1 went to work for American Water Works Company
 2 after that and worked for approximately 13 years.
 3 And then I worked for PBS & J and now for HDR
 4 Engineering Consulting Company.
 5 **Q.** When you worked for American Water, what
 6 did you do?
 7 **A.** I originally started off as a design
 8 engineer. And then I ended up being promoted and
 9 went out to the west region of American Water
 10 where I was the vice president of engineering and
 11 operations of the four Western Region companies,
 12 including California, Arizona, New Mexico and
 13 Hawaii.
 14 **Q.** Can you give the commissioners a sense of
 15 the scope of that organization versus what we're
 16 talking about here at Mountain Water.
 17 **A.** Yeah. Those four companies encompass
 18 over 26 communities and a population of over
 19 500,000 people in terms of providing water and
 20 wastewater services.
 21 **Q.** When you were at American Water, were you
 22 involved in the--in both the acquisition and the
 23 sale of water utilities?
 24 **A.** Yes, I was.
 25 **Q.** At HDR what do you do as it relates to

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1 water utilities now?
 2 **A.** I provide all the relative services a
 3 utility needs to operate their operation of public
 4 works. We're essentially a mirror image of a
 5 public works department. We provide utility
 6 planning, utility rates, management optimization,
 7 a lot of regulatory consent decree work and other
 8 functions, including operations for water and
 9 wastewater utilities across the country.
 10 **Q.** Is assessing the actual functioning
 11 condition of a water company something that you do
 12 in your line at HDR and based on your experience
 13 at American Water?
 14 **A.** Absolutely. We do asset management and
 15 condition assessment. We have our own
 16 laboratories where we actually do corrosion
 17 assessment of particular assets.
 18 **Q.** Can you briefly summarize your expert
 19 opinions and then we'll talk about each opinion in
 20 more detail. But let's just get the summary out
 21 there.
 22 **A.** Overall--our assessment, we went and
 23 toured all the vertical assets of Mountain Water
 24 Company. And, overall, our assessment was that it
 25 was--their system was rated fair to poor in terms

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1 of their condition of the vertical assets.
 2 The only thing we could do for the buried
 3 assets was to rely on data that was provided to us
 4 from Mountain Water Company. We were not allowed
 5 to go and do any investigation of, you know,
 6 underground assets, to be able to actually
 7 physically inspect the pipe or any other
 8 underground assets.
 9 **Q.** Okay. And did you compare what you saw
 10 in the field to industry standards?
 11 **A.** Yes, we did.
 12 **Q.** And give us a summary of what your
 13 opinions are in that regard.
 14 **A.** Overall their standards of
 15 their--particularly their backbone assets, their
 16 wells, their mains, their booster stations were
 17 generally below industry standards.
 18 **Q.** Did you evaluate the use of capital
 19 expenditures and whether capital expenditures
 20 needed in this system have met industry standards?
 21 **A.** We felt that there was not an adequate
 22 level of investment made into the facilities by
 23 Mountain Water Company to maintain the facilities
 24 at industry standards.
 25 When we went through and we put together

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1 our cost estimate we get a range that it would
 2 take \$66- to \$95 million over about a ten-year
 3 period of time to bring this system up to industry
 4 standards.
 5 **Q.** Lastly, did you reach some opinions about
 6 the RCNLD analysis conducted by Mr. Mantua, Black
 7 & Veatch?
 8 **A.** Yes, we did.
 9 **MR. CONNER:** Your Honor, may I register
 10 an objection? Would you mind if we go to
 11 chambers?
 12 **THE COURT:** Nope.
 13 (In chambers.)
 14 **MR. CONNER:** Your Honor, the reason I
 15 wanted to do this is that, and outside the
 16 presence of the commissioners, is Mr. Close as you
 17 know testified at the initial trial. I took his
 18 deposition. I--Mr. Mantua testified at that
 19 trial. All the facts were out with respect to
 20 Mr. Mantua's testimony.
 21 **THE COURT:** Not about the RCNLD. That
 22 didn't come out in the earlier trial.
 23 **MR. CONNER:** I understand that, Your
 24 Honor, but he already had all that information.
 25 We have not received a supplement from him in a

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1 report in regards to what he's going to testify
 2 about today.
 3 **MS. JONES:** Except for the 5th supplement
 4 that was served in December of last year. On
 5 Page 5 at Category 3 it discloses the rebuttal
 6 opinions of Mr. Craig Close. And it's stated
 7 there that Mr. Close is expected to provide
 8 rebuttal testimony as to Black & Veatch.
 9 And specifically on Line 6 it lists the
 10 category of testimony that will be offered at
 11 trial related to his opinions in rebuttal to the
 12 replacement cost less depreciation opinions of
 13 Mr. Mantua. And it states that the asset approach
 14 measure of value is significantly overstated
 15 because Black & Veatch overstates the condition of
 16 the system, understates and incorrectly determined
 17 the level of depreciation, assumed excessively
 18 high standards and cost of repair of the assets,
 19 and goes on from there.
 20 All of this was disclosed in December of
 21 last year.
 22 **THE COURT:** It seems like you got notice.
 23 **MR. CONNER:** We'll see what he says, Your
 24 Honor, thank you.
 25 (In open court.)

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1 **THE COURT:** So you may continue,
 2 Ms. Jones.
 3 **MS. JONES:** I can't recall, was he
 4 allowed to answer that last question?
 5 **THE COURT:** I don't think he got an
 6 opportunity to answer.
 7 **MS. JONES:** Okay.
 8 **Q.** (By Ms. Jones) What are your opinions
 9 related to the replacement cost new less
 10 depreciation analysis performed by, in summary,
 11 performed by Mr. Mantua?
 12 **A.** The analysis we performed, we determined
 13 that Mr. Mantua's analysis was flawed. That he
 14 did the replacement cost less condition-based
 15 depreciation incorrectly.
 16 He readjusted depreciation, which you
 17 cannot reset the depreciation clock, essentially,
 18 and go back and restate that it's no longer this
 19 amount of depreciation.
 20 Mountain Water Company has already
 21 collected depreciation at a certain rate based
 22 upon the condition that was on their books.
 23 So--their accumulated depreciation. So
 24 essentially they would have to refund their amount
 25 of depreciation if they are saying that those

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1 assets aren't as depreciated as they say they were
2 previously.
3 **Q.** Okay. Do you have other opinions about
4 Mr. Mantua's analysis as well, in summary, and
5 then we'll go back and talk about it in more
6 detail.
7 **A.** The methodology in which he rated the
8 percentage, he basically took assets in very
9 blanket type of generalized categories rather than
10 getting down to the individual assets.
11 And, also, he used an arbitrary
12 percentage of depreciation rather than actually
13 looking at the remaining useful life. Many of the
14 projections of depreciation resulted in him
15 projecting some of these assets to have 100 or
16 200 years of remaining useful life, which is very
17 unrealistic.
18 **Q.** We'll talk more about that later.
19 Let's--
20 **MS. JONES:** Your Honor, if I may use for
21 demonstrative purposes D-9, which is the cost
22 estimate.
23 **THE COURT:** All right.
24 **MR. CONNER:** Do you have a copy of that,
25 Tasha?

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1 **MS. JONES:** I sure do, yup.
2 **Q.** (By Ms. Jones) You stated it briefly a
3 moment ago, but--and we'll talk more in detail
4 about this as well.
5 But can you please describe the total
6 amount based on your assessment in summary form of
7 the types of capital expenditures that HDR
8 believes are necessary to bring this system up to
9 industry standards.
10 **A.** Yes. As I said, we looked at both the--I
11 mean, physically inspected the vertical assets.
12 We did inspection reports. We broke down--each of
13 the facilities down into primary asset classes.
14 We then rated each of the asset classes
15 on condition independently of each other and then
16 came up with an overall--a rating of a condition
17 assessment of each of those facilities.
18 On this form that overall rating of those
19 facilities are here. A 3 is considered fair, a 2
20 is considered poor, 4 is good, 5 is considered
21 excellent or new, and 1 is considered in imminent
22 failure and unrepairable, in our rating.
23 **Q.** Okay.
24 **A.** We then went forward and provided an
25 opinion of cost from a range of a low end to a

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1 high end of each of those asset classes and added
2 those up for each of the facilities, which is then
3 summarized on this table here.
4 **Q.** Can you quickly just summarize those
5 categories for us here.
6 **A.** Yes. We then provided a category for all
7 the wells themselves. The well facilities, the
8 booster stations, the reservoirs, the tanks, the
9 dams, pipelines and mains, services and meters,
10 PRB stations and general facilities like the
11 operation center and rolling stock inventory and
12 those type of things.
13 **Q.** And the total amount of capital that you
14 think is necessary, you and HDR team think is
15 necessary, what's that?
16 **A.** The total for all the facilities that
17 comes up to is roughly \$66-, \$67 million to around
18 \$95 million over the next ten years.
19 **Q.** Okay. Let's back up now.
20 Describe in a bit more detail the process
21 that HDR followed in order to assess these assets
22 to reach the estimates that we just discussed.
23 **A.** Well, what we did is, like I said, we
24 broke it into different asset classes, like pumps,
25 motors, valves, piping, instrumentation. All the

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1 primary asset classes that we would see in these
2 type of facilities.
3 We then compared each of those asset
4 types by physical inspection to industry standards
5 of that type of piece of equipment. We would
6 compare a pump or a motor to what it should be and
7 rate it against an industry standard.
8 Then once we used our rating based on
9 condition on that particular asset class, and then
10 we put a cost to what it would bring--to be able
11 to bring that asset up to where it should be as an
12 industry.
13 **Q.** Did you come to Missoula and actually
14 spend time evaluating these assets?
15 **A.** Yeah. We spent a whole week touring
16 around all the facilities for Mountain Water
17 Company. And then at each night our inspection
18 team, there were five of us, we would get together
19 and we would compare notes. We did--the vertical
20 inspections were done with two-man teams and then
21 we compared notes and compared so there was
22 consistency across all the valuations.
23 **Q.** When you and the HDR team were evaluating
24 those assets, did you find evidence of deferred
25 maintenance?

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1 **A.** Yes, we did. There was a lot of work
2 that was done on terms of piping that was corroded
3 and not maintained. There was a lot of evidence
4 in terms of pumps and motors that had not been
5 properly maintained. Building structures that
6 were deteriorating and needing repairs.
7 So there was a lot of evidence that
8 certain proper preventative maintenance was not
9 done.
10 **Q.** Did you photograph that evidence as you
11 saw it during the inspection?
12 **A.** Yes, we did.
13 **MS. JONES:** Your Honor, we would move to
14 admit all of the photos taken by HDR which are
15 found in Exhibits 1190, 1191, 1192, 1193, 1194,
16 1195, and 1196.
17 **THE COURT:** Any objection?
18 **MR. CONNER:** No objection, Your Honor.
19 **THE COURT:** Very well, they are admitted.
20 **EXHIBITS:**
21 (Exhibit Nos. 1190-1196 received into
22 evidence.)
23 **THE COURT:** Mr. Mercer, any objection?
24 **MR. MERCER:** No objection.
25 **Q.** (By Ms. Jones) Let's finish the

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1 discussion, then, related to the above-ground
2 assets. Okay?
3 So when you broke those well houses down
4 into categories as an example, why didn't you just
5 give a blanket assessment to everything that was
6 in a well?
7 **A.** Well, it's not realistic to provide a
8 blanket condition assessment that would cover a
9 whole facility because each of the different
10 assets have a different useful life. Obviously
11 the life of a pump and a motor is different than a
12 concrete structure, per se; or that the piping and
13 valves, and particularly SCADA instrumentation,
14 has a much shorter life than does electrical
15 equipment.
16 So to break all those down you need to
17 assess each one individually to be able to give it
18 a proper assessment against the expected useful
19 life.
20 **Q.** Does the useful life of, say, the
21 chemical feed have the same useful life of the
22 pump and motor?
23 **A.** No, absolutely not.
24 **Q.** And what is the relative costs of those
25 two pieces of equipment?

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1 **A.** Well, depending on the facility it could
2 be significantly different based upon those,
3 absolutely. Obviously, depending on the size of
4 the pump, if it's a small pump it's not a very big
5 cost. If it's a large horsepower, it would be a
6 lot more. Chemical feed, it certainly could--
7 depending on how complex, it could be a large or
8 relatively small cost.
9 **Q.** And what about the useful life? Is it
10 different for chemical feed versus the pump and
11 motor?
12 **A.** Oh, yes.
13 **Q.** Okay. Can you describe some of the
14 general problems that you saw when you guys
15 analyzed and assessed the condition of these
16 assets? Let's start with the pumps and the
17 motors.
18 **A.** Well, there was a lot of antiquated
19 equipment, older pumps and inefficient pumps that
20 we saw that were out there.
21 When we first went out, most of the
22 facilities were not running. We had asked the
23 Mountain Water Company to turn them on. They
24 indicated they wouldn't do that. We then did
25 reach an agreement that they would turn five

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1 facilities on that we went back to and evaluated
2 when those were running. And in each of those
3 five cases we felt--we found there were, you know,
4 particularly the pumps, the motors, vibration and
5 pinging noises and things, that we downgraded the
6 condition of all of those facilities once we got
7 to look at those.
8 So there was definitely corrosion that
9 was present in a lot of the pumps. A lot of
10 presence of water. A lot of the well pumps were
11 not anchored down to the foundation. They were
12 just sitting there.
13 There was a lot of--like I said, in the
14 piping, a lot of corrosion, a lot of rust and
15 other, you know, the exposure problems that were
16 there.
17 **Q.** How about the chemical feed systems that
18 you evaluated? How did they stack up?
19 **A.** Well, the chemical feed systems was
20 relatively in poor condition. They were all--you
21 could tell they were all added to the facilities
22 at a later date, basically tacked onto buildings
23 or structures to the well facilities.
24 A lot of them--some of them didn't have
25 adequate spill containment. There was a lot of

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1 evidence of chemical spills. They did not have
2 adequate spill containment for fill--for the
3 chemical fill capabilities. Or at the diffusers,
4 where they were put into the pipe, there was a lot
5 of evidence of chemical spills within the pump
6 station, on the pipe, and on the floors of the
7 facilities.
8 **Q.** How about the HVAC systems? Did you look
9 at those?
10 **A.** They were in extremely poor condition.
11 Most of them were not operable. And a lot of them
12 were blanked off, which is of great concern
13 because of cooling for the pumps and electrical
14 equipment.
15 Also the HVAC systems in the chemical
16 buildings were almost all corroded to the point of
17 where they weren't operable. So we found that
18 almost in all facilities the HVAC system would
19 have to be replaced across-the-board.
20 **Q.** As you evaluated each of these wells and
21 booster stations, did you encounter facilities
22 where all the pipe had been wrapped in aluminum
23 sheeting?
24 **A.** Yeah, there were several facilities that
25 we came across that had basically metal-jacketed

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1 insulation around the pipe where we couldn't
2 inspect the pipe directly. We had then asked
3 Mountain Water Company to remove the jacketing of
4 one facility, Upper Prospect.
5 **Q.** Let me ask you another question before
6 you go there. Were you surprised to see that?
7 **A.** Very much so. I had asked one of the
8 production supervisors, you know, if they had a
9 freezing problem. And he indicated that that was
10 a new policy that they were using instead of
11 painting and maintaining the pipe.
12 The only reason you would actually put
13 that insulation on is if you had a freezing
14 problem or if you had a corrosion problem, that
15 you were trying to protect the pipe.
16 **Q.** Now, what is the appropriate way based on
17 your experience to protect against corrosion for
18 these types of pipes?
19 **A.** Before you put the metal jacketing on you
20 have to properly prep the pipe in terms of taking
21 off all the rust and all the debris, prime it,
22 paint it, and make sure it's properly protected.
23 Because what happens is when you put a
24 metal jacketing on and there is going to be some
25 moisture that's present, it's not airtight, you've

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1 actually created a worse environment for corrosion
2 to be able to hit for spot corrosion along those
3 pipes between the surface of the insulation and
4 the pipe itself.
5 **Q.** In the records and the information that
6 you have reviewed in this case, did you find any
7 evidence that Mountain Water Company had ever used
8 this aluminum sheeting to cover their pipes before
9 2014?
10 **A.** No, we had not seen any evidence of that.
11 **Q.** Okay. So you asked to have some of it
12 removed?
13 **A.** Yes.
14 **Q.** What did you find?
15 **A.** What we found was that the pipe was not
16 prepped. It was all rusted and corroded
17 underneath the piping we found. The similar
18 metals, galvanized piping against steel piping,
19 metal piping where you have a galvanic action.
20 But the piping was in relatively--and valves were
21 in relatively poor condition.
22 **Q.** Okay. Let's go to the pipes, what's
23 under the ground, and let's talk about that.
24 What conclusions has HDR drawn related to
25 the piping in terms of age, materials, leakage,

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1 the condition of what's in the ground?
2 **A.** We got only limited data from Mountain
3 Water Company, most of it from their GIS system,
4 in terms of their piping. They had aged material
5 for most of their assets in there.
6 We then did analysis in categorizing the
7 history and what break history we did have and
8 came up with a projection of the remaining useful
9 life of the different types of pipes by age and
10 material. And we found it relatively fair, and
11 some of them, of the materials, were in imminent
12 need of replacement.
13 **Q.** When you were looking at the pipes, was
14 leakage important?
15 **A.** Absolutely. You know, we looked at the
16 leakage that they were experiencing. Roughly
17 anywhere between the high 40 percent, 48, 49
18 percent, to as high as 56 percent in any given
19 year. They are actually pumping more water to go
20 back in the ground than they were selling to their
21 customers.
22 But what that really shows, it gives
23 evidence of how poor the condition of the pipes
24 and services are in the system.
25 **Q.** How does the leakage rates that you

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1 evaluated compare to industry standards?
 2 **A.** To be perfectly honest, for a system of
 3 this size this is unprecedented as to the amount
 4 of leakage that we should see in a system with
 5 such a little amount of mileage of pipe.
 6 A lot of comparisons to--a well-run water
 7 utility should have water loss of under 15
 8 percent. Many try to have goals of under 10
 9 percent. So I would say that the industry
 10 standard, though, is somewhere in the 20, 25
 11 percent, industry average out there. There are
 12 some that have larger systems, I would say, around
 13 the country that may have, you know, 30, 40
 14 percent leakage, but those are much larger
 15 municipal systems, much more main that they have
 16 to deal with. A system of this size, they
 17 shouldn't be anywhere near that.
 18 **Q.** As a community, should we be worried
 19 about the leakage at Mountain Water?
 20 **MR. CONNER:** Objection, Your Honor. He's
 21 not here to testify what the community should be
 22 worried about, but the condition.
 23 **THE COURT:** Sustained.
 24 **Q.** (By Ms. Jones) Okay. Does the leakage
 25 factor into your overall assessment of the

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1 condition as a whole of Mountain Water Company?
 2 **A.** Yes, it does.
 3 **Q.** Why?
 4 **A.** It's not sustainable. I know there has
 5 been discussion about it's economic to be able to
 6 go and continue to provide additional wells in
 7 production, but it's not sustainable to be able to
 8 do that. You can't go and continue to increase
 9 leakage up to 70, 80, 90 percent and continue to
 10 build production facilities to be able to do that.
 11 From a community standpoint or from a
 12 condition assessment, at some point in time that
 13 balloon payment of when you are going to have to
 14 replace all that main and infrastructure is going
 15 to come due. And the impact on the community and
 16 the ratepayer is going to be significant.
 17 **Q.** Let's talk about the service lines.
 18 We've heard assumptions made by Mountain Water
 19 Company that they blame 50 percent of the leakage
 20 on the service lines. Do you agree with that
 21 assessment?
 22 **A.** No, I don't. The ability--they are
 23 losing about 4.6 billion gallons a year through
 24 leakage of the system.
 25 To say that 2.3 billion gallons of water

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1 a year is coming out through service lines and
 2 that there is no evidence of that in terms of
 3 surface--I don't care how much percolation and
 4 indicate that that goes back in the ground--there
 5 would be evidence of water--of that magnitude of
 6 water around source lines in people's yards to be
 7 able to see that kind of leakage.
 8 We're talking about a hundred thousand
 9 gallons of water a year per household for every
 10 single service in the system to be able to kind of
 11 reach that kind of leakage. That's not realistic.
 12 **Q.** As a part of your analysis, did you give
 13 an estimate of what it would take to bring the
 14 services in this community up to industry
 15 standards as well?
 16 **A.** Yes.
 17 **MR. CONNER:** Objection, Your Honor. The
 18 services are not being acquired as part of the
 19 assets in this system, so I think it's not
 20 relevant to the valuation of the assets being
 21 condemned. It's been established that the
 22 services are not owned by Mountain Water and are
 23 not being taken by the City.
 24 **MS. JONES:** This was directly testified
 25 to by Logan McInnis when he testified about the

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1 fact that Mountain Water has done the right thing,
 2 they have taken responsibility for some of the
 3 services and they have a plan to do that in the
 4 future. So it's directly in response to that.
 5 **THE COURT:** No, I'm going to sustain
 6 Mr. Conner's objection. I think it's
 7 inappropriate to go there.
 8 **MR. CONNER:** Your Honor, could we also
 9 request that--the exhibit that's been provided has
 10 a section on it for the replacement cost of
 11 services, and that that should be redacted in what
 12 goes to the Commission.
 13 **MS. JONES:** That's just for demonstrative
 14 purposes. We didn't intend it to go into
 15 evidence. It's listed as D-09 and we'll just
 16 collect it at the end of this, Your Honor.
 17 **THE COURT:** It looks like that section
 18 also includes meters, right?
 19 **MR. CONNER:** Well, their line item, they
 20 could redact it, Your Honor, is what they could
 21 do. But she's already given it to the
 22 commissioners, so that's okay.
 23 **MS. JONES:** Whatever you want us to do,
 24 Your Honor, we will do.
 25 **Q.** (By Ms. Jones) All right. Let's talk

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1 about the materials and the age of the pipes in
2 the ground. Is that problematic?
3 **A.** Yeah. The majority of the pipe that's in
4 the ground is older than 45 years, with much of it
5 closing on 80, 90 years old. You know, a great
6 deal of it, about 20 percent, has already exceeded
7 its useful life.
8 **Q.** In your opinion, is it reasonable to
9 expect that the pipe that is 40 to 80 years old
10 will still have 70 percent of its useful life
11 left?
12 **A.** No. There is no evidence to be able to
13 show that. Particularly the type of materials. A
14 lot of the materials are antiquated, aren't even
15 manufactured any longer, like Kalamein pipe and
16 invasion piping. Cast iron piping is not used any
17 longer.
18 And to be able to say that there's in
19 some cases 70 or 80 or, in some of the estimates,
20 over 100 years in projected remaining life is not
21 realistic.
22 **Q.** All right. Let's go back to the RCNLD
23 analysis by Mr. Mantua.
24 Did you find discrepancies in the
25 construction costs and administrative fees used by

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1 Mr. Mantua?
2 **A.** Yes. We reviewed his construction costs.
3 In most cases they were reasonable. However, in
4 particularly the pipelines, the cost that he used
5 was--really should have been inclusive of
6 engineering construction costs, as well as all the
7 appurtenances. He's stated in there that's he's
8 included appurtenances in his report. So anything
9 like valves, isolation valves, you know, other
10 fittings and those types of things should have
11 been all included in his base rate. So it's
12 relatively inflated for some of those extra cost
13 factors.
14 **Q.** How about the administrative fees as
15 well? Typically are the construction and design a
16 part of the capital project for constructing main
17 replacement projects?
18 **A.** In review of quite a few number of the
19 job orders that were provided here recently right
20 before the Court hearing is, they had included a
21 Mountain Water Company administrative fee on every
22 job order, work order that I reviewed.
23 **Q.** Was that appropriate?
24 **A.** I don't know what it's for. It certainly
25 raises a red flag.

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1 **Q.** Okay. You mentioned that when you worked
2 at American Water that you were involved in
3 the--both the sale and in the acquisition of water
4 companies at American Water; is that right?
5 **A.** Primarily the acquisition of smaller
6 water utilities, yes.
7 **Q.** Okay. Can you describe your experience
8 in that regard?
9 And really the question is, is it
10 appropriate at all to use the replacement cost
11 less depreciation analysis, in your opinion?
12 **A.** No.
13 **MR. CONNER:** Objection, Your Honor.
14 This witness has not been identified as
15 an expert to talk about valuation of the
16 companies. In his deposition he testified he was
17 not a valuation expert. He's an engineer. And no
18 foundation has been laid.
19 **THE COURT:** Ms. Jones, is there
20 additional foundation that you need to lay?
21 **MS. JONES:** I'm not asking him for a
22 valuation opinion. I'm asking him, based on his
23 experience of, whether the method of replacement
24 cost new less depreciation has ever been used by
25 him in his experience in valuing the companies.

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1 I'm not asking him to put a price on it. I'm just
2 asking him about the method and whether it was
3 appropriate in his experience.
4 **THE COURT:** I think that's legit.
5 **MR. CONNER:** There is a difference
6 between valuing companies and buying companies at
7 a certain price.
8 If she's asking him testimony about what
9 he's experienced in valuing companies, he's
10 testified he's not a valuation expert. If she's
11 asking him about the price American Water may have
12 paid for a company, then I don't mind that
13 question.
14 **THE COURT:** I thought she was asking him
15 about the method that they used to set the price.
16 **MR. CONNER:** She said value, Your Honor.
17 And she said "appropriate at all."
18 **MS. JONES:** I can rephrase the question.
19 **THE COURT:** All right, thank you,
20 Ms. Jones.
21 **Q.** (By Ms. Jones) In your experience at
22 American Water, did you ever use the replacement
23 cost less depreciation analysis in looking at the
24 acquisition of any company?
25 **A.** No, we did not.

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1 Q. What methods did you use?
2 A. We used original cost less depreciation,
3 or rate base, which is essentially book value.
4 Q. And what's the difference? Why did you
5 use that analysis versus what we've seen in court
6 today?
7 A. Well, what you are really looking at--
8 Q. Or over this week, excuse me.
9 A. Yeah. What you are really saying is what
10 the value of the asset is, and it's based on the
11 original cost it took to put the pipe in the
12 ground, less its depreciation.
13 Rather than saying what would it take to
14 rebuild the system today. And that would be the
15 valuation of whatever--you know, that asset is.
16 So we typically never would use that as a
17 justification of any of the systems that we
18 purchase.
19 Q. Is there a difference between replacement
20 cost and reproduction cost?
21 A. Yes.
22 Q. What is that?
23 A. Replacement cost is going and replacing
24 that particular asset with a new, updated--I guess
25 I use it--my best way in terms of replacement cost

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1 is using a car. You know, if it's got a 1947
2 Chevy in there, you know, the--I'm sorry, not
3 replacement cost, but--
4 Q. Reproduction?
5 A. Reproduction cost would be putting the
6 exact 1947 car in place.
7 Replacement cost is that you are going to
8 put a new car in there that would replace that
9 actual car. That would be actually the difference
10 between those.
11 Q. When you evaluated Mountain Water
12 Company's assets, did you find that there were
13 inefficiencies systemic in the system?
14 A. Yes, we did.
15 Q. Can you please describe those.
16 A. Well, mainly in terms of the condition of
17 the facility. I think the employees did a great
18 job of operating based upon the antiquated
19 equipment and limited resources they had. But
20 there was definite evidence of not actually
21 replacing and maintaining equipment up to
22 standards that would actually reduce the operating
23 costs of the company.
24 Q. How about the number of wells? Did you
25 find inefficiencies there?

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1 A. Absolutely. Due to the leakage issues
2 that they had to continue to put wells, they had
3 probably twice as many wells as they would need to
4 be able to provide to actually meet their max day
5 demand. So actually half the wells that they are
6 operating are actually pumping water back into the
7 ground.
8 Q. If the leakage is fixed, what would
9 happen?
10 A. Obviously as they continue to reduce
11 leakage they wouldn't need those wells unless
12 there was other additional growth and customers
13 that were there. They would have stranded
14 investments. And in terms of the PSC, if it's not
15 used and useful, then they are required to take
16 those assets out of rate base and can no longer
17 earn on them.
18 Q. What about the storage? What did you
19 find about the storage?
20 A. They had very limited storage in their
21 system for a system of this size and of demand.
22 They only had 10 million gallons worth of storage.
23 And that they were augmenting storage from the
24 wells to be able to meet operational storage, as
25 well as fire flow demands.

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1 Q. We know that we have some hills in this
2 community. Can you describe how the water moved
3 into the hills and whether that's an efficient
4 use.
5 A. Yeah. They have 40-some-odd different
6 pressure zones through the system, and they do a
7 lot of pumping the water from the wells into the
8 first gradient and booster stations that pump that
9 up to higher elevations.
10 But then they turn around and have, I
11 think, 27 pressure-reducing stations where they
12 actually break the head and actually go and burn,
13 basically, power to be able to reduce those
14 pressures back into these different. If we were
15 going to go and build a system today, we wouldn't
16 build it with all those inefficiencies. It's
17 obvious this system has been piecemealed together
18 over time.
19 Q. All right. At this time I would like to
20 have you turn to D-100. Let's talk about--
21 MS. JONES: And, Your Honor, these
22 are--D-100 is a selection of photos. All of them
23 are found within Exhibits 1190 through 96 which
24 you already admitted, and we would just like to
25 demonstrate to the commissioners some of the

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1 problems that HDR found.
 2 **MR. CONNER:** Your Honor, I object to the
 3 characterization of the photographs. They know
 4 they are photographs. She doesn't have to give
 5 them what they look like.
 6 **THE COURT:** Go ahead.
 7 **Q.** (By Ms. Jones) What are we--well, can
 8 you set us up on how these photographs are
 9 organized.
 10 **A.** Yeah. At each of the facilities we then
 11 took a picture of the nameplate of the facility as
 12 we went into it to keep a record of what pictures
 13 went to what facility.
 14 **Q.** All right. Let's turn to 100, Page 2.
 15 **A.** This is an example in the Russell--well,
 16 one of the discharge pipes that's in the well
 17 facility. You can see considerable rust and
 18 corrosion on the pipe, blistering.
 19 You can also see on the floor
 20 where--those are the chemical feed application
 21 points--where there is chemical spills on the
 22 floor. Of particular concern is, there is a floor
 23 drain there that has chemicals spilled on top of
 24 it, so you are exposing chemicals to an open floor
 25 drain.

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1 So this was a pipe that was in relatively
 2 poor condition and you can see the evidence of
 3 deferred maintenance on maintaining the pipe that
 4 was there.
 5 **Q.** Let's look at the next page, 100, Page 3.
 6 **A.** Yeah, this is the same pipe, just looking
 7 at the pipe that's below it and the chemical
 8 spills that are falling down on the pipe below and
 9 corroding the pipe underneath of it.
 10 **Q.** Is it important--is the condition of the
 11 flooring important?
 12 **A.** Yeah, there's spalling on the concrete.
 13 Obviously deterioration of the concrete itself is
 14 reducing the life of the facility.
 15 **Q.** Let's go to the next photo, 100-4. Just
 16 carry on. I'm not sure I can fix it.
 17 **A.** This is an example of one of the
 18 operating fans of the HVAC system where they use
 19 an actual regular house fan and strap it up to the
 20 wall at the louver to be able to try to cool the
 21 facility.
 22 **Q.** Go ahead to the next photo, 100-5.
 23 **A.** This is one of their chemical feed
 24 systems and they use all sodium hypochlorite in
 25 day tanks. There was no actual proper fill

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1 capabilities where they would maintain the spill
 2 from actually when they fill the chemical. So
 3 there's exposure of spills outside of the spill
 4 containment. All the feed lines were not double
 5 lined or contained along the system. And there
 6 was evidence of spills and corrosion on the HVAC
 7 system from the chemical vapors themselves.
 8 **Q.** I'll go ahead and show you guys the
 9 bottom of that photograph since it's cut off.
 10 **A.** You can see the chemical on the floor.
 11 And the other point there, is there is
 12 another open floor drain within the spill
 13 containment area.
 14 **Q.** Let's go to the next photo, D100, Page 6.
 15 **A.** This is just showing the corrosion within
 16 the chemical of the equipment that's mounted on
 17 the wall of the chemical room. You can see it's
 18 rusting and supported. It's turned sideways,
 19 unfortunately, there.
 20 **Q.** Let's go to the next photo.
 21 **A.** This is the Pattee Creek well facility.
 22 **Q.** 100, Page 8.
 23 **A.** This is the motor. It's cut off at the
 24 bottom again. The pump is actually the blue
 25 portion. That's the pump head.

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1 Most noticeably is the amount of moisture
 2 and water corrosion along the wall down at the
 3 bottom.
 4 The other thing is, this is one that the
 5 pump was not mounted to the foundation. It was
 6 just sitting there. They did not use anchor bolts
 7 or anything, so all the stress of the vibration is
 8 being taken out by the discharge piping itself,
 9 which then leads to premature, you know, life of
 10 the pump itself.
 11 **Q.** Let's go to the next photo.
 12 **A.** This is just an example down below, where
 13 you see where the anchor bolt would be, it's
 14 missing. The hole's there. And you can see how
 15 much corrosion there is on the floor and of the
 16 concrete foundation.
 17 **Q.** Why don't we step ahead to 100-11.
 18 **A.** Again, this is just showing the base of
 19 the pump where it's not connected, and the
 20 corrosion of the foundation.
 21 **Q.** Is this a condition that you found at
 22 multiple locations?
 23 **A.** Yes, we did.
 24 **Q.** Okay. Let's go to 100, Page 12.
 25 **A.** This is the Rattlesnake Booster Station

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1 that we looked at.
2 **Q.** Okay. And next photograph.
3 **A.** What you see here, there are three pumps
4 in this facility and there was quite a bit of
5 moisture. There is only a partial concrete floor.
6 A lot of dirt that's in there.
7 They have truck mats that are over
8 top--laying over the top of the pumps because of
9 excess spray. We'll show it again in another
10 picture, but you can see it in the background.
11 On instrumentation equipment, there is
12 corrosion on instrumentation equipment.
13 And there is also hazard signs on pumps
14 that because of concerns of arc flashing with all
15 the water, there's hazard signs on the equipment
16 for protection. There is inadequate space between
17 the pumps to actually work on them.
18 **Q.** Let's go to the next photo, Page 14.
19 **A.** This is just a close-up of the two pumps.
20 You can see how close they are. You can see the
21 dirt floor. The pumps were not mounted on the
22 concrete base. They were actually on wood shims.
23 They were just sitting there.
24 Again, there was spray and corrosion on
25 the walls from overspray from the pumps.

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1 Again, we show a picture of the warnings
2 of the concerns that they had of arc flashing on
3 the motors.
4 **Q.** Let's go to 100, Page 16. There you go.
5 **A.** This is just a close-up of the
6 instrumentation panel and the corrosion from the
7 overspray.
8 **Q.** Can you determine from what you were
9 seeing there whether this has been a long-term
10 problem?
11 **A.** Yes, you can see evidence by the rust and
12 water exposure that this has been going on for
13 quite some time.
14 **Q.** The next page, 17.
15 **A.** This is the warning sign that they have
16 on the pumps, indicating that there is a shock
17 hazard and arc flash concern from these motors and
18 it's a safety hazard.
19 **Q.** Next photograph, please.
20 **A.** This is really kind of showing the
21 close-up of the corrosion of the piping that was
22 under the metal mesh that was covering the piping
23 on the discharge of the pumps.
24 **Q.** Page 19.
25 **A.** This is a close-up of the wood shims that

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1 were supporting the pump. Again, they just set
2 the pumps there and shimmed them up with no
3 foundation.
4 The proper way is to use a nonmetallic,
5 nonshrink grout. Float it underneath and anchor
6 bolt them down to prolong the life of the pumps.
7 **Q.** Next photograph.
8 **A.** That's turned as well. There you go.
9 The roof was repaired, a new roof was put
10 on. However, there was considerable evidence of
11 leakage that was in the ceiling of that.
12 And the only ventilation for this whole
13 facility is that one louver that's there, which is
14 really inadequate for the facility.
15 **Q.** Next photograph.
16 **A.** This is one of the discharge pipes from
17 the pumps. You can see the corrosion that's
18 occurred. You can see the dirt floor below it.
19 And obviously you can see that it's not
20 been maintained, the pipe painted, or it's
21 starting to corrode and pit and will need
22 significant maintenance to maintain the life.
23 **Q.** Let's go to the next photograph. It's
24 22.
25 **A.** This is the Willowwood well.

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1 **Q.** Next page, 23.
2 **A.** This is a motor that was there. It was a
3 2,400-volt motor that was rebuilt for 480 use,
4 which is very inefficient. There was no really
5 evidence that we could find on the pump. When I
6 asked the operator the age, he indicated it was
7 probably over 75 years old. So this is the age of
8 the materials that were there that we saw in one
9 of the facilities.
10 **Q.** Did you evaluate information about the
11 general efficiency of the pumps in the booster
12 stations and the wells?
13 **A.** Yeah. Mountain Water Company had two
14 recent electrical or power efficiency/pump
15 efficiency studies done. We reviewed those.
16 And it was evident that the pumps were
17 almost all below industry standards in terms of
18 efficiencies. We would expect well pump
19 efficiencies in the 75, 80 percent efficiency for
20 the well pump. They were down in the 50s and 60
21 percent range of efficiencies.
22 And as well as for the booster pumps, we
23 would expect that in and around the 70 percent
24 range of efficiency. We saw some as low as 25
25 percent efficient in that study. And that study

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1 was done in 2013, well past the time frame that
2 they indicated that there was any maintenance
3 really done.
4 Q. And when were these photographs taken?
5 A. These photographs were taken in
6 September-October of 2014.
7 Q. Okay. Next photograph.
8 A. This is just a picture of the--whoops,
9 turn. Here you go--of the pump, the waste valve,
10 pump control valve. You are starting to see it.
11 This is one of the facilities that had
12 the metal jacketing, and we'll have another
13 picture of that coming up here.
14 Q. Can you see evidence of corrosion on this
15 piece of equipment?
16 A. Yes. You can actually see the rust and
17 the corrosion on the valve itself and on the
18 piping that we could see.
19 Q. Okay, next photograph. That's upside
20 down, too.
21 A. That's flipped upside down. You had it
22 right there.
23 Anyway, what this is showing is this pump
24 is not anchored down as well. There were no
25 anchor bolts found mounting it to the foundation.

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1 It was just sitting there.
2 Q. All right. Next photograph.
3 A. It's difficult to see, but this is the
4 discharge pipe that leaves the well station going
5 out. There you go.
6 And one that was operating. This is one
7 of the facilities that was operating. There was
8 water and spray that was coming out. It was
9 severely corroded and in imminent failure just by
10 the amount of water that was blowing out of the
11 different cracks that were there.
12 Next picture is--whoops, again, turned
13 around.
14 This is the discharge as they dumped it
15 into an open channel that was there. What you can
16 see there is they used fence to try to hold back
17 the embankment that they were eroding away from
18 the discharge of the pump. So they actually put a
19 regular fence right in there and tried to backfill
20 against it.
21 Q. Next photograph.
22 A. This is turned around. There you go.
23 This is what the metal jacketing looks
24 like. This is how--a number of the facilities and
25 the insulation was put around it. We could only

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1 visualize--it wasn't on all of the facilities, but
2 it was on several that we did inspect.
3 Q. Okay. Let's go to the next photo, 29.
4 A. This is the Hilda well.
5 Q. Let's go to 30.
6 A. This is the building of the well facility
7 itself. It's a metal building. You can see the
8 chemical building that's been tacked on to the
9 side of the facility there.
10 Q. Next photograph.
11 A. This is the inside of the chemical
12 building. You are not seeing the bottom which--
13 Q. There you go.
14 A. --which shows there were chemical spills.
15 And there was inadequate spill containment for
16 holding these, so any spill is going to leak out
17 onto the ground.
18 Q. Next photo, Page 32.
19 A. This is a picture of the discharge pipe
20 of the well. And you can see the corrosion and
21 the condition of the piping itself. It's severely
22 rusted and corroded. And to keep it together they
23 actually used, you know, rods to try to keep the
24 coupling together there. So this is just an
25 example of the condition of the facility itself.

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1 Q. Next photo.
2 A. This is just another picture of the pipe.
3 It's turned sideways. Yeah, you see where the
4 chemical feed point is. There was evidence of
5 leakage of chemicals around that and actual
6 corrosion on the pipe itself.
7 Q. Next photograph, Page 34.
8 A. This is the Lower Elk Ridge Booster
9 station.
10 Q. One more photo and then we'll wrap up.
11 A. What's interesting about this is they
12 obviously had a problem there on the pump
13 coupling. They actually cut half of the housing
14 away to be able to get access to it and left it
15 that way, which is really not appropriate to do
16 that in terms of repair.
17 So you can see where they actually cut
18 and ground away to be able to get to the coupling
19 itself. But they didn't go and maintain it. They
20 didn't go back and repair it or do anything for
21 the structural integrity of that.
22 Q. This is probably a good breaking spot.
23 **THE COURT:** All right. So we really have
24 reached lunchtime, so we'll be in recess until
25 1:30.

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1 A reminder, just don't discuss the case,
 2 do any independent research.
 3 Mr. Close, if you would wait there until
 4 the commissioners have left.
 5 (Whereupon, court was in recess at
 6 12:07 p.m., reconvened at 1:31 p.m.)
 7 **THE COURT:** Once again, do the parties
 8 agree that the jurors in the jury box are the
 9 commissioners appointed by this Court to determine
 10 fair market value of the water system?
 11 **MR. MERCER:** Yes, Your Honor.
 12 **MR. CONNER:** Yes, Your Honor.
 13 **MS. JONES:** Yes.
 14 **THE COURT:** Thank you.
 15 Mr. Close, you understand you are still
 16 under oath?
 17 **THE WITNESS:** Yes.
 18 **THE COURT:** You may continue, Ms. Jones.
 19 **Q.** (By Ms. Jones) Before the break we were
 20 talking about the Lower Elk Ridge Booster station
 21 at D100-34. And I think we were two photos in at
 22 37.
 23 **A.** That's correct.
 24 **Q.** I actually want to skip a few. We want
 25 to try to get through these. Let's go to 37.

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1 What do you see here?
 2 **A.** You see the valve and the angled pipe
 3 that's been manufactured. We looked at that pipe
 4 and it was determined that it was at imminent
 5 failure. The corrosion had reached the point
 6 where the structural integrity of the pipe had
 7 been exceeded.
 8 **Q.** Let's go to the next photo, 38. The same
 9 pipe?
 10 **A.** That's the same piece of pipe, yes.
 11 **Q.** Okay. And what is the problem here?
 12 **A.** Well, the problem is that the pipe could
 13 fail and--both in terms of damage to the station
 14 itself.
 15 Now, they do have redundant pumps, but
 16 depending on what happens with the water until
 17 that gets shut off, what happens to the station.
 18 **Q.** Are there things that could be done to
 19 stop the pipe from getting to this point?
 20 **A.** Well, they should have had preventative
 21 maintenance where they actually had taken off all
 22 the rust, corrosion, primed it, painted it and
 23 maintained it to a proper coating to protect it
 24 from the corrosion that's occurred. But it's now
 25 reached the point where it's pretty much beyond

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1 the ability to repair.
 2 **Q.** Let's go to the next photo, 100-39. What
 3 is this?
 4 **A.** This is the Upper Prospect booster.
 5 **Q.** Okay, next page.
 6 **A.** This is turned.
 7 **Q.** I'll give you this one here. What are we
 8 looking at here?
 9 **A.** Well, what we're looking at is the pump
 10 is on the left-hand side and the control valve is
 11 the closest to us. The pump is not mounted on
 12 anything. It's up in the air. It's mounted just
 13 off the flanges of the piping, and you can see the
 14 base of the pump is above the floor.
 15 **Q.** Let's go to the next photo.
 16 **A.** As you can see here, this is one of the
 17 supports they have under the pipe. But the pump
 18 itself is not installed on any type of foundation
 19 or any type of support, which is totally against,
 20 you know, best practices within the industry.
 21 **Q.** The next photo, please, 44--excuse me,
 22 43.
 23 **A.** This is the other side. This is the
 24 space that's underneath the pump, underneath the
 25 pump itself.

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1 **Q.** All right, let's go to the next photo.
 2 Skip ahead to 50. We've already seen these.
 3 Which well are we talking about here?
 4 **A.** This is the South Avenue one.
 5 **Q.** Okay. Next page, 51.
 6 **A.** This is another example of how the
 7 condition of the pipe is allowed to be severely
 8 corroded. Evidence of chemical spills, and to the
 9 point where it's corroding the actual concrete
 10 floor underneath of it.
 11 **Q.** And when you say spill, I mean, what are
 12 you talking about there?
 13 **A.** Well, there is an injector where the
 14 sodium hypochlorite comes through a plastic line,
 15 then goes into a diffuser into the pipe where they
 16 use it for disinfection.
 17 At that joint or that connection there is
 18 a leak around the diffuser or in the connection of
 19 the plastic pipe that then runs down onto the
 20 pipe, then onto the floor.
 21 **Q.** Can you see that in this photograph in
 22 particular?
 23 **A.** It's hard to see.
 24 **Q.** There is a pointer that I just gave you.
 25 **A.** Yeah, this is the line that's coming in

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1 from there into the diffuser. It's going into the
2 top of the pipe. It's hard to see it behind it,
3 but there might be a better picture later.
4 **Q.** Okay. Did you see this at multiple
5 locations?
6 **A.** Yes. At numerous locations did we see
7 that there was no spill containment around the
8 connection point to the pipe, and that there was
9 evidence of spills and leakage.
10 **Q.** Could you tell whether or not these were
11 isolated events or chronic problems?
12 **A.** Based on the deterioration of the piping
13 and the floor and the concrete, these were
14 long-term issues.
15 **Q.** Okay. Let's go to Page 52.
16 **A.** This is a close-up of the pipe. You can
17 see the diffuser coming in here. But you can see
18 there the pipe has reached the point where the
19 structural integrity of the pipe is now starting
20 to fail.
21 **Q.** Okay. 53.
22 **A.** This is the chemical room. You can see
23 obviously that they had some problems with spill.
24 Obviously this is chemical. This is sodium
25 hypochlorite that's dripping off of the fan. You

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1 can see the corrosion on the fan and the sodium
2 hypochlorite all over the walls, so they have
3 obviously had operational problems where they have
4 had spill or spray from the chemicals all over
5 inside of the chemical building.
6 **Q.** Let's go to the next photo, 54.
7 **A.** This is again the same station. The fan
8 was just above this. You can see all the
9 corrosion and the deterioration of the wall and
10 the evidence of spill of the chemical on the wall
11 itself. There is no spill containment on the
12 chemical lines themselves, which they are required
13 to do.
14 **Q.** Okay. Page 55.
15 **A.** Just to show how much vapors and how much
16 spill, this is the door to the chemical building.
17 It's corroded to the point where it's starting to
18 fall apart. So that's how much chemical vapors
19 that are actually in this room. So the
20 ventilation system is not working and there's just
21 having that much exposure to chemical. So that's
22 a safety hazard that they have right there.
23 **Q.** All right. And that's not all the photos
24 that you took; is that right?
25 **A.** No. We experienced these types of things

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1 at numerous facilities.
2 **Q.** You can take that down now.
3 One follow-up question about Mr. Mantua.
4 You understand that he was allowed to take some
5 samples of the pipe. Do you recall that?
6 **A.** Yes.
7 **Q.** Do you find Mr. Mantua's pipe sampling to
8 be reliable?
9 **A.** No, I do not.
10 **Q.** Why not?
11 **A.** It's relatively such a small and
12 selective sampling of the piping. It's only
13 150 feet of pipe. It's very evident that they
14 didn't take any of the real older pipe, and some
15 of the materials that they selected were not
16 necessarily the, you know, worst materials they
17 could have checked. There wasn't a good
18 cross-section of the sampling of the pipe that was
19 out there.
20 **Q.** Okay. I want to talk to you briefly
21 about the Wilderness Dams and the intake dam.
22 **A.** Okay.
23 **Q.** Did HDR also do an assessment of those
24 dams?
25 **A.** Yes.

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1 **Q.** And did that include a physical
2 inspection of the dams?
3 **A.** Yes, it did.
4 **Q.** What were the findings? In summary
5 fashion, please.
6 **A.** We found--relatively they were in fair to
7 poor condition. There was a lot of
8 stability--slope stability issues, seepage issues,
9 cracking on the structures themselves. There was
10 a lot of erosion. And the fear of the overtopping
11 during winter months of flow would ultimately
12 bring--you know, overtop and the dams could fail
13 and damage the environment, habitat and
14 particularly the trout fisheries habitat
15 downstream.
16 **Q.** Did you also review the inspection
17 reports that were provided to Mountain Water by
18 Hydrometrics?
19 **A.** Yes. Mountain Water Company would have
20 annual kind of operations inspection reports, not
21 stability analysis or any detailed analysis,
22 comprehensive analysis done. And they listed a
23 number of deficiencies and preventative
24 maintenance that they had ticked off. And those
25 were repeated from year to year, that they weren't

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1 being done. So, yes, we looked at that. And it
 2 was evident when we did our inspection they were
 3 still not done at the time of our inspection.
 4 **Q.** Okay. Let's talk about the intake dam
 5 quickly. I would like to show you D1, Page 1.
 6 **MS. JONES:** Another demonstrative
 7 exhibit, Your Honor.
 8 **Q.** (By Mr. Jones) Can you explain to the
 9 commissioners what we're looking at here and what
 10 is of concern to you.
 11 **A.** Yeah, we're looking at the downstream
 12 face of the dam. There is a large longitudinal
 13 crack that goes across the top of the dam.
 14 The deterioration of the divider there is
 15 almost completely gone now. There is evidence of
 16 seepage and I think another picture will show
 17 that, but there is just the strength of stability
 18 and structural integrity of this. And there was
 19 evidence of erosion that was, you know, noticeable
 20 at the abutments.
 21 **Q.** Let's go to 3.
 22 **A.** This is again the abutment--whoops, back.
 23 You can see a vertical crack along the
 24 left side. Longitudinal cracks in the abutments.
 25 There's seepage along the interface between the

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1 dam and the abutment. And there is definitely
 2 quite a bit of seepage at the weephole that shows
 3 that they are having internal cracking and leakage
 4 through the structure itself.
 5 **Q.** Let's go to 5.
 6 **A.** This is in the face of the downstream
 7 face. We saw evidence of seepage was here.
 8 Obviously they had a problem before where they put
 9 a steel plate and there is seepage around the
 10 steel plate, during our inspection.
 11 **Q.** And No. 6.
 12 **A.** This is the upstream face. You can see
 13 the concrete deterioration of the face of the dam
 14 itself where it's spalling and starting to crumble
 15 apart.
 16 And just evidence to the downstream
 17 cracking, which we showed on the other picture,
 18 that the top of the dam is starting to fail.
 19 **Q.** Last one, No. 9 on demonstrative 1.
 20 **A.** Yeah, this is again on the upstream side
 21 of the dam where you see the undermining of the
 22 spillway apron. There is exposed concrete
 23 aggregate. And there is definitely a lot of
 24 sloughing off of the slope around the dam, and
 25 there is definitely a lot of concrete

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1 deterioration in the face of the dam itself.
 2 **Q.** What was the overall assessment of the
 3 intake dam?
 4 **A.** The intake dam was in poor condition.
 5 And our overall recommendation for the dams was
 6 that we felt they needed to be taken out of
 7 service. That they be notched and stabilized and
 8 not used for future use.
 9 **Q.** Overall, have the owners of the Mountain
 10 Water Company water, in your opinion, met industry
 11 standards by funding sufficient maintenance and
 12 capital investment?
 13 **A.** No.
 14 **Q.** Overall, does Mountain Water--
 15 **MR. CONNER:** Object to the leading, Your
 16 Honor.
 17 **Q.** (By Ms. Jones) What is your opinion as
 18 to whether or not Mountain Water meets industry
 19 standards with respect to leakage?
 20 **A.** I don't think they have met the industry
 21 standards for providing the proper investment to
 22 maintain the system at industry standards at a
 23 level of service that is typically expected.
 24 **Q.** Overall, can you tell us whether or not
 25 the system as a whole is in good condition?

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1 **A.** It's in fair condition. I would not say
 2 it's in good condition.
 3 **Q.** All right, thank you.
 4 **THE COURT:** Cross-examine?
 5 **MR. CONNER:** Yes, Your Honor. Just a
 6 minute if I could.
 7 **THE COURT:** Yes.
 8 **MR. CONNER:** Our piles are growing.
 9 **CROSS-EXAMINATION**
 10 **BY MR. CONNER:**
 11 **Q.** Good morning, Mr. Close--or afternoon.
 12 **A.** Good afternoon.
 13 **MR. CONNER:** May I approach, Your Honor?
 14 **THE COURT:** Yes.
 15 **Q.** (By Mr. Conner) Mr. Close, you
 16 identified your scale, I'll call it the Close
 17 Scale, in your assessment of condition, correct?
 18 **A.** Correct.
 19 **Q.** 1 through 5. 1 is failure or imminent
 20 risk of failure or unrepairable, correct?
 21 **A.** Yes.
 22 **Q.** 2 is poor, 3 is fair, 4 is good and 5 is
 23 like new condition or new.
 24 You just indicated to Ms. Jones that the
 25 system was in fair condition overall, correct?

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1 A. Right.
 2 Q. Now, with respect to percentages, can
 3 you, with this scale of 1 to 5, and you rated the
 4 system right in the middle of 3, what percent
 5 condition would you give this system under this
 6 scale?
 7 A. I don't understand your question because
 8 the assets are all going to be different. I would
 9 rate the assets differently.
 10 Q. But you said overall. Can you not
 11 determine and give us if this system is rated 50
 12 percent good compared to original? You can't do
 13 that, can you? Or can you?
 14 A. I would think that would be very
 15 speculative to do that. We came up with a rating
 16 based on the different type of facilities,
 17 different type of asset classes and things to come
 18 up with that conclusion. So it's really not a
 19 percentage type of question.
 20 Q. Well, I understand your scale. I'm
 21 trying to help the commissioners, because
 22 Mr. Mantua did a percent condition. You
 23 understood what he did, right?
 24 A. Yeah. And I didn't agree with it.
 25 Q. I understand that. But you understood

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1 what he did and we're seeing what you did. I'm
 2 just saying, how can we compare your scale to his
 3 scale. Can you?
 4 A. Well, let me answer it this way. The
 5 backbone of the system, the wells and the piping
 6 and those things, are more--which is probably more
 7 than half the system, is below fair.
 8 The tanks and booster stations and some
 9 of the other facilities were considered at fair
 10 and good.
 11 Q. All right. Well, give me those other
 12 facilities.
 13 A. The wells and pipes. The piping.
 14 Q. Fair to good?
 15 A. No, poor. Those are poor as well.
 16 Q. I thought you said--
 17 A. No.
 18 Q. Let me start--wait for me.
 19 I want to know what you are rating the
 20 categories to fair and good. You said tanks and
 21 boosters.
 22 A. Booster stations.
 23 Q. Not the wells?
 24 A. Not the wells.
 25 Q. I misunderstood you. What else is fair

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1 to good?
 2 A. May I take a look?
 3 Q. It depends on how long it's going to
 4 take.
 5 A. Not very long.
 6 Q. Okay, go ahead. Oh, absolutely. Go
 7 ahead.
 8 A. Okay. The wells were fair to good.
 9 Q. I thought you said the wells were poor.
 10 A. I'm sorry, fair to poor. I misspoke.
 11 Q. So we've got category fair to poor for
 12 the wells.
 13 A. That's correct. Booster stations were
 14 considered fair overall. The reservoirs and the
 15 tanks were considered fair to good.
 16 Q. I'll put tanks/reservoirs.
 17 A. Pipelines were rated from--everywhere
 18 from--and a majority of the footage was considered
 19 poor, to some of it was considered to be in
 20 imminent failure.
 21 Q. So we've got--well, how much percentage?
 22 Would that be the Kalamein and the invasion?
 23 A. And cast iron.
 24 Q. The cast iron is in imminent failure?
 25 A. It was rated at 1.5.

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1 Q. So we've got cast iron pipe, CIP, you
 2 know that designation. Does that include the cast
 3 iron lined and unlined, everything?
 4 A. That was the unlined. Unlined cast iron.
 5 Q. What percentage of the system had unlined
 6 cast iron?
 7 A. I would have to--I would have to look at
 8 that, but--go back and look at the actual
 9 percentage. But it's probably at least 10
 10 percent.
 11 Q. 10 percent? Okay.
 12 And then Kalamein and invasion make up
 13 about 5 percent of the whole system, right?
 14 A. There's about 15 miles of--a little over
 15 5 percent. 5 to 7 percent.
 16 Q. Say 5 would be good?
 17 A. 5.
 18 Q. I'll put K for Kalamein, I for invasion
 19 and that makes up total 5 percent. So 15 percent
 20 of the pipe you are saying is in imminent risk of
 21 failure.
 22 A. Plus the galvanized I would put into
 23 that. Galvanized pipe would be in imminent
 24 failure.
 25 Q. Would you agree with me, sir, that if

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1 Mr. Mantua depreciated the Kalamein and invasion
2 pipe by 95 percent, that that's an appropriate
3 level of depreciation for those pipes?
4 A. No, I would not. You would have to go
5 back to what it was originally depreciated. You
6 can't change the depreciation rate by doing this.
7 You have to go back to find what was on the books,
8 find out what was actually depreciated. My guess
9 is they are 100 percent depreciated already.
10 Q. On the books?
11 A. On the books.
12 Q. If they are 100 percent depreciated and
13 still carrying water, they are still used and
14 useful but they are not reflected in rate base,
15 are they?
16 A. No, they are not.
17 Q. Let's take that right now because
18 Mr. Barrett asked a question of the last witness
19 about what book value is.
20 Now, book value is original cost less
21 book depreciation, isn't it?
22 A. Correct.
23 Q. That's the same as rate base, right?
24 A. Correct.
25 Q. Now, book value and rate base does not

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1 include items that are fully depreciated but still
2 in service. Correct?
3 A. That's correct.
4 Q. And a fairly large percent of the pipe in
5 this system is fully depreciated on the books,
6 isn't it?
7 A. That's correct.
8 Q. Would you say 40 percent, 50 percent?
9 A. I would just be speculating. I'll take
10 your word on it.
11 Q. Say 50 percent of the pipe?
12 A. Yeah.
13 Q. So 50 percent of the pipe is fully
14 depreciated and is not reflected in book value or
15 rate base. One and the same.
16 Okay. And I'm going to say that's the T
17 & D mains?
18 A. Uh-huh.
19 Q. Yes, sir?
20 A. Yes.
21 Q. Okay. Transmission and distribution
22 mains.
23 All right. In addition to that you are
24 familiar with contributions, whether they are
25 coming to the system, developer?

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1 A. Funded by Others.
2 Q. Funded by Others. When something is
3 Funded by Others, it's still owned by the utility,
4 isn't it?
5 A. Well, they are responsible for owning and
6 operating it, that's correct.
7 Q. Owning, operating it. They depreciate
8 it. They pay taxes on it generally, correct?
9 A. They don't--they don't earn on it. Only
10 what's in rate base do they depreciate.
11 Q. Right. But they own that pipe.
12 A. Well, they--it doesn't go into rate base
13 until they actually pay the developer back.
14 Q. Right. But when they pay the developer
15 back, that portion of it does go to rate base,
16 right?
17 A. That's correct.
18 Q. All right, so contributions--and we'll
19 call it CIAC, contributions in aid of
20 construction, correct?
21 A. Correct.
22 Q. CIAC is not in rate base until the
23 developer is paid back.
24 A. That is correct.
25 Q. And in Mountain Water's case they have a

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1 40-year contract where they are obligated to pay
2 back the full amount over 40 years.
3 A. That's correct.
4 Q. And then in addition to that, that's not
5 included in rate base, would be any nonutility
6 property or excess property that's not utilized in
7 the system.
8 A. So if it's not used and useful, it's not
9 in rate base or book value.
10 Q. Right. So if it's not in rate base--and
11 I think you testified in the last trial and I
12 believe you testified here just now, that Mountain
13 Water has more than enough groundwater rights in
14 the ground itself and it's not necessary for them
15 to use the Rattlesnake water rights. Correct?
16 A. That is correct.
17 Q. So the Rattlesnake water rights would be
18 excess property?
19 A. Right.
20 MS. JONES: Objection, calls for a legal
21 conclusion.
22 THE COURT: That's overruled.
23 Q. (By Mr. Conner) The Rattlesnake water
24 rights under that analysis would be excess,
25 correct?

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1 A. If there's value to it.
 2 Q. I didn't ask you about value, sir. I
 3 asked you about the water rights themselves.
 4 A. They would be outside of rate base.
 5 Q. So I'm going to say excess--or nonutility
 6 property.
 7 A. Nonutility property.
 8 Q. And so the Rattlesnake water rights
 9 are--should be considered as nonutility property.
 10 Correct?
 11 A. Correct.
 12 Q. Under this analysis.
 13 And then in addition to that with respect
 14 to the groundwater rights, if it's proven--not
 15 from you. But if it's proven that there are
 16 excess groundwater rights over what's needed for
 17 the operation of the system, that could also be
 18 viewed as nonutility property. Correct? Under
 19 the same analysis.
 20 A. Possibly. I would have to see the
 21 determination of value.
 22 Q. I understand. But just under that
 23 hypothetical the same would apply, right?
 24 A. Yes.
 25 Q. All right, excess groundwater rights.

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1 Now, is there anything else that's not
 2 included in rate base that you are familiar with?
 3 A. Not that I'm aware of.
 4 Q. Okay. Thank you.
 5 Now, Mr. Mantua, I think you indicated
 6 that he had been--I believe you said, "We reviewed
 7 his construction costs and in most cases they were
 8 reasonable." Do you recall saying that?
 9 A. Yes.
 10 Q. And his construction costs are reflected
 11 on--summarized on Exhibit 2541.
 12 Can you pull that up, Matt.
 13 Craig, it's up here--or Mr. Close, I'm
 14 sorry. Now, you indicated that--I think you said,
 15 just did, that by and large they were reasonable.
 16 But you also indicated that you felt his RCN,
 17 replacement cost new, right here, for the pipe--
 18 A. Right.
 19 Q. --\$259 million--
 20 Can you highlight that one, Matt.
 21 --that that should have included the
 22 valves, the nuts, the bolts and things of that
 23 nature.
 24 A. Yes. Based on the unit prices that we
 25 have and what we used in our estimate. Our

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1 estimate is very comparable to the 219,683, but
 2 that included valves, hydrants and also
 3 engineering construction costs.
 4 Q. Okay.
 5 A. So the other costs were--
 6 Q. Let me stop you there.
 7 So are you saying, then, that his system
 8 valves and regulating valves, approximately
 9 11.7 million there--
 10 Matt, highlight the 9 and the 2 there.
 11 There you go.
 12 You are saying that that should have been
 13 included in a line item for the pipe.
 14 A. Yes.
 15 Q. Okay. So under your analysis then he
 16 should just deduct those, to be fair in your
 17 assessment.
 18 A. Correct.
 19 Q. That should come off the top,
 20 11.7 million, off his RCN, correct?
 21 A. Correct.
 22 Q. Now, was his nonconstruction percentage
 23 that he applied for nonconstruction costs, was
 24 that appropriate?
 25 A. No. We felt that that should have been

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1 in the actual base costs, because the cost he was
 2 using was inflated for the overall cost of the
 3 pipe.
 4 We feel that the overall value of the
 5 pipe is roughly--for the replacement cost new, is
 6 very close to the \$219 million.
 7 Q. So what we would need to do then is put
 8 the 219 where the 259 is; is that right?
 9 A. Correct.
 10 Q. And then delete the 9.5 and the 2.1 for
 11 system valves and regulating valves.
 12 A. And fire hydrants. You missed the six
 13 million for fire hydrants.
 14 Q. Well, fire hydrants are above the ground.
 15 A. Yeah, but that's included with all the
 16 piping. The cost is below ground anyway.
 17 Q. That's how do you it.
 18 A. That's how we do it.
 19 Q. So let's also delete 6 million there for
 20 hydrants.
 21 A. Correct.
 22 Q. So we're deleting everything in yellow:
 23 9.5, 2.1 for regulating valves, 6 million for
 24 hydrants and 259 for pipe. And we're replacing
 25 those entries with 219.6 million. Correct?

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1 A. That's a typical cost that we've come up
2 with for that same--
3 Q. Just yes or no, sir.
4 A. Yes.
5 Q. Okay. And then based on what you said
6 earlier, are the other costs then and the
7 nonconstruction percentage that are applied, are
8 those reasonable? Are those what you were viewing
9 as the reasonable costs?
10 A. Yeah, they are relatively reasonable,
11 yes.
12 Q. For the commissioners' sake then, if we
13 just do simply what I said and deduct everything
14 that's in yellow on total RCN and put over 219,
15 then we'll add everything up and you would agree
16 that that's a reasonable reproduction or
17 replacement cost new for this system?
18 A. Yes.
19 Q. Okay. Did you make that calculation?
20 A. Yes.
21 Q. And what was your number?
22 A. Well, what we did is we checked this
23 number and we were very close to this. We were
24 slightly lower than that.
25 Q. But you would go with this number?

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1 A. Close enough.
2 Q. Okay. Can you make that calculation for
3 me, Matt, and we'll come back to it, or Katie.
4 All right--didn't have quite a long-enough lunch
5 to do that.
6 Let's see. Now, you indicated that the
7 sampling that Mr. Mantua did was not reliable.
8 Correct?
9 A. Correct.
10 Q. You didn't sample any pipe, did you, sir?
11 A. We weren't allowed to. You did not let
12 us do it.
13 Q. I did not let you do it?
14 A. You did not let us do it.
15 Q. Did we have a conversation about that?
16 A. Yes, we did, on September 10th on the
17 phone.
18 Q. On the phone. And was that the phone
19 call that Craig Stonehouse was on with you and me
20 and Ms. Jones?
21 A. Yes.
22 Q. Did Ms. Jones forward you my e-mail in
23 regard to that?
24 A. No.
25 Q. She didn't?

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1 A. No.
2 Q. Let's take a look at your deposition,
3 sir.
4 Matt, let's go to--I believe it's 58.
5 And let's go to Line 16--or 18. No, let's go
6 above that. Line 12.
7 "Isn't it true that prior to and during
8 the inspection of the water system--I believe
9 it began on September 29--that you--or that
10 neither you nor anyone else on your team
11 requested underground sampling of pipe?"
12 Your answer? What is your answer, sir?
13 "That is correct." Isn't it?
14 A. I have to answer the question as, we
15 asked on the 10th. You had already made it
16 abundantly clear beforehand that we were not
17 allowed to do it during our visit.
18 Q. Sir, I'm asking you about your
19 deposition.
20 A. We did not ask because we were already
21 told so.
22 Q. I was asking about your deposition, sir.
23 A. Okay.
24 Q. Let's go to the next question. "Isn't it
25 true"--this is Line 18.

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1 "Isn't it true to this date, other than
2 requesting that pipe from the Hilda Avenue
3 main replacement project be retained, you have
4 not asked for any type of random underground
5 sampling of the water distribution system
6 owned by Mountain Water. You haven't asked
7 for it."
8 A. We did ask for it--
9 Q. Let me finish. Go to the answer. Please
10 highlight that, Matt.
11 "No, we have not asked for any sampling.
12 The idea was a piece of pipe that was
13 already being removed for a project and
14 available"--
15 And then let's go down.
16 --"rather than digging something up."
17 Now, that deposition was taken, sir, on
18 November 12, 2014, wasn't it?
19 A. Yes.
20 Q. Thank you.
21 With respect to your demonstrative
22 Exhibit D9-001. Can you pull that up, Matt?
23 MR. BURNS: We weren't provided that.
24 MR. CONNER: Can you pull it up?
25 MS. JONES: They have it.

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1 Q. (By Mr. Conner) Do you have it, Craig?
2 A. Yes, I have it right here.
3 MR. CONNER: You didn't redact it at
4 lunch?
5 MS. JONES: It's demonstrative. We're
6 going to collect it back. It's not in evidence.
7 MR. CONNER: I just wanted to make sure
8 it was still there.
9 Can you pull it up, Tina, and go to the
10 second page.
11 Q. (By Mr. Conner) The 66 to 95 million
12 range you said was necessary to be spent on this
13 system from today through the next ten years is
14 reflected on this document. Correct?
15 A. That is correct.
16 Q. Now, you included, and the judge just
17 said earlier, sustaining my objection, that
18 services and the cost of services should not be
19 included. Right?
20 A. I presume so. I wasn't in closed
21 session.
22 Q. Let's just do the math so we're clear
23 it's not 66 to 95 million anymore.
24 If you look at service and meters,
25 unknown galvanized service lines, copper service

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1 lines, galvanized service lines, plastic or poly
2 lines, you have anywhere from--and I've added this
3 up--14.2 million as the low, to 20.2 million.
4 A. Correct.
5 Q. If you deduct that from your overall
6 total, you are at approximately 52.6 million and
7 75--for a low, and 75 million for a high over the
8 next ten years.
9 A. Correct.
10 Q. Now, in addition to that, your
11 recommendation is that the dams should be retired
12 and notched, correct?
13 A. Correct.
14 Q. So if that's the case, you've put a cost
15 estimate in here to repair the dams at a low of
16 925,000 to a high of 1.4 million. Correct?
17 A. Correct.
18 Q. Over the next ten years?
19 A. That was just to bring them up to safety
20 standards, yes.
21 Q. So that would not have to be done if they
22 were notched, correct?
23 A. But the cost to notch them and everything
24 else would have to be added to that. That would
25 be additional.

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1 Q. Okay, so it would be a wash then?
2 A. No. It would be considerably more to
3 retire them.
4 Q. Well, why didn't you put that in?
5 A. We were only asked to bring it up to
6 safety standards.
7 Q. Industry safety standards, correct?
8 A. Industry safety standards, correct.
9 Q. For the record--and we can check the
10 math. Can you pull back up Exhibit 2541, I think,
11 please. 2541, Matt.
12 All right. Ms. Jones (sic) has made the
13 calculation and this would be--
14 Go to the second page.
15 MS. JONES: Ms. DeSoto.
16 MR. CONNER: Ms. Jones did not make this.
17 I apologize. And I apologize, Ms. DeSoto.
18 MS. DESOTO: Ms. DeSoto was an English
19 major, so it took me awhile.
20 Q. (By Mr. Conner) By making the deductions
21 that you suggested from the 325 million total
22 replacement costs new, can you read the new number
23 for the record for us? And you can just round it.
24 A. The number you put in front of me was
25 264,791,000 and change.

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1 Q. 264--I'm sorry, 264 what?
2 A. 791.
3 Q. Let's go 264.8. Can we do that?
4 A. There you go.
5 Q. RCN. Okay. We're in agreement there?
6 A. Uh-huh.
7 Q. Yes?
8 A. Yes.
9 Q. Thank you. You've only done two or three
10 RCNLDs before in your career, correct?
11 A. I've done probably three or four, yes.
12 Q. Well, in your deposition you said two or
13 three.
14 A. Yeah. I've done actually some since
15 then.
16 Q. Oh, okay. In each of those or at least
17 at the time of your deposition you had applied
18 accumulated depreciation, correct?
19 A. Yes.
20 Q. And the ones that you've done since your
21 deposition, did you also apply accumulated book
22 depreciation?
23 A. The way I've done it and the way it
24 should be done, is that you go back and take the
25 depreciation percentage of each asset. You use

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1 that same depreciation percentage on the
 2 replacement costs new, and you can't go and alter
 3 the depreciation percentage. It's against
 4 Government Accounting Standards and GAAP.
 5 Q. Well, you can't alter the book--or
 6 base--or book value accumulated depreciation?
 7 A. And you can't alter the replacement cost
 8 depreciation percentage.
 9 Q. All right. What you are saying then, if
 10 I'm clear, that book value, which is reflective
 11 of, let's say, the PSC accumulated depreciation,
 12 is the depreciation that should be applied in an
 13 RCNLD.
 14 A. The percentage. Not the actual dollar
 15 amount.
 16 Q. The percentage.
 17 A. Right.
 18 Q. Okay. I'm just trying to get clear.
 19 A. So if it's 50 percent depreciated on
 20 their book value on the replacement cost it's 50
 21 percent depreciated.
 22 Q. Okay. So even then in your situation on
 23 an RCN, if you have assets that are in service,
 24 providing service every day--which a lot of these
 25 assets are, they are fully depreciated--but they

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1 are 100 percent depreciated on the books, then
 2 they would be reflected in your RCNLD as zero
 3 value?
 4 A. That is correct.
 5 Q. All right. I just want to make sure
 6 we're clear.
 7 **THE COURT:** Mr. Conner, do you need that
 8 exhibit up anymore?
 9 **MR. CONNER:** Oh, no, Your Honor, we can
 10 take it down. Thank you.
 11 Q. (By Mr. Conner) Isn't it true,
 12 Mr. Close, that at trial you testified that you
 13 reviewed many of the facilities, the ones you
 14 talked about with Ms. Jones today and others that
 15 you didn't talk about. The above-ground
 16 facilities. I think you called them the vertical
 17 assets, correct?
 18 A. Correct.
 19 Q. And you also had an opportunity within
 20 doing that, some of those were developer-
 21 contributed locations, correct?
 22 A. Correct.
 23 Q. And isn't it true, sir, that you compared
 24 the developer-contributed locations to the
 25 Mountain Water built and designed locations?

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1 A. Correct.
 2 Q. And you testified before that:
 3 "And typical Mountain Water facilities,
 4 particularly the wells and a number of booster
 5 stations, were fair to poor. The
 6 developer-contributed facilities were all
 7 rated good."
 8 Do you remember that testimony?
 9 A. Yes.
 10 Q. And you stand by that testimony today,
 11 correct?
 12 A. Yes.
 13 Q. And your conclusion from that testimony
 14 was:
 15 "Well, obviously they know, you know, the
 16 requirements that they are putting, providing
 17 to the developer to build and the standards
 18 that they are building to, are much higher
 19 than they are maintaining their own facilities
 20 at."
 21 A. Correct.
 22 Q. And you still believe that?
 23 A. Yes.
 24 Q. Okay.
 25 **MR. CONNER:** Give me just a moment, Your

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1 Honor.
 2 Q. (By Mr. Conner) Mr. Mantua was--
 3 Mr. Mantua was here earlier. You are not
 4 Mr. Mantua, I know that.
 5 Mr. Close, you were here back in March
 6 for the trial as well, right, the necessity trial?
 7 A. Yes.
 8 Q. And you inspected this system for five or
 9 six days in September, first of October, correct?
 10 A. Correct.
 11 Q. And during the trial you did see all
 12 those pipe samples that we submitted, correct?
 13 A. Correct.
 14 Q. Did you look at them?
 15 A. Not closely, no.
 16 Q. You didn't pick them up and even consider
 17 those 12. Even though you said it was an inferior
 18 sample, you didn't want to even look at them, did
 19 you?
 20 A. It's not representative of the system.
 21 Q. Well, you wanted to look at one pipe,
 22 though, a failed pipe on Hilda Avenue, didn't you?
 23 A. For a particular reason.
 24 Q. Okay. I'm just asking--
 25 A. Because we wanted to look at Kalamein

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1 pipe.
 2 Q. Okay. And Kalamein pipe is going to be
 3 replaced in this system anyway, right?
 4 A. The concern was if the Kalamein pipe had
 5 to be replaced sooner than over ten years.
 6 Q. And your determination was it didn't,
 7 correct?
 8 A. Well, we never got to look at it because
 9 they never delivered Kalamein pipe to us, even
 10 though it was on the records of their other
 11 drawings.
 12 Q. Isn't your replacement schedule,
 13 Mr. Close, premised on the fact that all Kalamein
 14 and invasion is to be replaced over a ten-year
 15 period?
 16 A. Yes.
 17 Q. Thank you.
 18 Now, with respect to sampling. You said
 19 that you had done some RCNLDs, four or five.
 20 You've never done a condition assessment that
 21 included underground sampling of pipe, have you?
 22 A. No, I--yes, I have.
 23 Q. You have?
 24 A. Yes, I have.
 25 Q. When have you done that?

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1 A. We've done that at different times when I
 2 was at American Water. I've done condition
 3 assessment for this--as part of other valuations.
 4 Q. All right. Where you've actually sampled
 5 transmission/distribution main?
 6 A. Correct.
 7 Q. Matt, would you pull up his deposition,
 8 Page 32, Line 22. Page--this isn't his testimony.
 9 Not the testimony. It's the deposition.
 10 Question: "Have you ever performed a
 11 condition-based depreciation analysis that
 12 included sampling of transmission and
 13 distribution mains?"
 14 Answer: "No, we have not."
 15 A. What I was referring--
 16 Q. Is that correct, Mr. Close?
 17 A. No.
 18 Q. So your testimony in November of 2014 is
 19 incorrect?
 20 A. This was referring to that we did not do
 21 any for Mountain Water Company. I misunderstood
 22 the question.
 23 I have done it but on other projects.
 24 What I was referring to in this case was regarding
 25 Mountain Water Company. We did not do any

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1 condition-based sampling of the Mountain Water
 2 Company pipe.
 3 Q. So you didn't understand my question to
 4 be, have you ever done it?
 5 A. No. I never took it as forever.
 6 Q. All right. Now, you said that the number
 7 of samples weren't sufficient for a system of this
 8 size?
 9 A. Yes.
 10 Q. What number samples are, Mr. Close?
 11 A. Well, no, there's actually defensible
 12 sampling in terms of statistical analysis that you
 13 go and analyze based on the length of the pipe,
 14 material of the pipe, and you statistically can
 15 have a cross-section to be able to do that.
 16 I haven't done that analysis here, but we
 17 have done it on other ones that we've done for
 18 condition-based sampling. And there is a way, a
 19 legal representation of that sampling criteria.
 20 But this doesn't meet that.
 21 Q. Well, let's just be clear, sir. You
 22 didn't look at the 12 samples we did, right?
 23 Correct?
 24 A. Correct.
 25 Q. And you didn't do this analysis to

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1 determine what should have been the sample size,
 2 correct?
 3 A. No, we did not.
 4 Q. No further questions.
 5 **THE COURT:** Very well. Mr. Mercer, do
 6 you have any questions?
 7 **MR. MERCER:** No, Your Honor.
 8 **THE COURT:** Ms. Jones, any redirect?
 9 **REDIRECT EXAMINATION**
 10 **BY MS. JONES:**
 11 Q. Okay, just briefly.
 12 Do you know what percentage has been
 13 depreciated on the books at Mountain Water?
 14 A. No, I do not.
 15 Q. Could be higher or lower than 50 percent?
 16 A. Yes.
 17 Q. You are not going to take Joe's word for
 18 it?
 19 A. No.
 20 Q. Do you know whether or not the
 21 Rattlesnake water rights have been transferred
 22 from the Rattlesnake and used in wells in
 23 Missoula?
 24 A. I'm not aware if they have or not.
 25 Q. You don't know whether or not there is

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1 any excess water rights?
 2 **A.** No, I do not.
 3 **Q.** All of this could be in rate base now?
 4 **A.** Could be. I haven't had a valuation rate
 5 case.
 6 **Q.** Why didn't you ask for more pipe samples
 7 after September 10th?
 8 **A.** Well, we discussed it internally, but it
 9 was made clear that that was not going to be made
 10 available to us.
 11 **Q.** And who made that clear?
 12 **A.** Joe Conner.
 13 **Q.** Why did you include the services
 14 originally in the cost estimate?
 15 **A.** Originally we included the services
 16 because it certainly is a part of the water system
 17 that's providing, you know, service to the
 18 customers. And even though they may not have--you
 19 know, Mountain Water Company may not own them, the
 20 City is going to have to do something to replace
 21 those. They are not going to be able to just put
 22 that onto the homeowner to resolve all those aging
 23 services.
 24 **Q.** Okay. Last question. I've now done the
 25 math.

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1 By how much did Mr. Mantua overstate the
 2 construction costs? Does \$61 million overstated
 3 sound about right?
 4 **MR. CONNER:** Object to leading, Your
 5 Honor.
 6 **A.** Well, I have to look at the number that
 7 he gave me, which are the two numbers. I would
 8 have to do the math here, I'm sorry.
 9 **Q.** We'll let the commissioners do the math
 10 on that.
 11 **A.** Sounds in the ballpark anyway.
 12 **Q.** All right, well, let's just do it.
 13 So it was 325 million--we don't need to
 14 do the dollars and cents--minus that number. Will
 15 you do that?
 16 **A.** Roughly 60 million.
 17 **Q.** \$60 million overstated?
 18 **A.** Yeah.
 19 **Q.** Thank you.
 20 **THE COURT:** Anything further, Mr. Conner?
 21 **MR. CONNER:** Your Honor, could I take
 22 just a second to talk to co-counsel (sic) about
 23 something? This is about an exhibit. If we could
 24 just go off the clock for a second.
 25 **THE COURT:** Sure.

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1 **MR. SCHNEIDER:** We're not co-counsel.
 2 **MR. CONNER:** Not co-counsel, I'm sorry,
 3 opposing counsel. I just feel so warm and fuzzy
 4 today.
 5 Back to deposition page--you know what,
 6 Craig? No further questions. Thank you.
 7 **THE COURT:** All right. Commissioners, do
 8 you have any questions of Mr. Close?
 9 **EXAMINATION**
 10 **BY COMM. BARRETT:**
 11 **Q.** Mr. Close, you present me with a very,
 12 very, very rare opportunity. There is almost
 13 never a time when two Swarthmore graduates are in
 14 the room at the same time in the State of Montana,
 15 so go Garnet.
 16 **A.** What are the odds of that?
 17 **Q.** Not good, not good. Not good at all.
 18 I did want to go back. Mr. Conner asked
 19 you about what happens to your summary figure here
 20 when you remove services. And he--those numbers
 21 went past me really fast.
 22 If I look at this on Page 3 of your--I
 23 guess it's Page 2--Page 3 of your--of this
 24 document here, it looks like you would reduce your
 25 low estimate by \$30 million and your high estimate

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1 by \$40 million. Is that correct?
 2 **A.** No. The bottom numbers of that are
 3 meters and not services. Just the services alone
 4 is \$14 million on the low end and roughly
 5 \$20 million on the high end.
 6 **Q.** Oh, okay, thank you.
 7 Now, let me ask you a couple more things.
 8 I'm interested in these industry standards. This
 9 is the amount of money that would be required to
 10 get up to industry standards in ten years. Is
 11 that what you said?
 12 **A.** That is correct.
 13 **Q.** Now, I don't know exactly what "getting
 14 up to industry standards" means, but I guess my
 15 general question--I guess I can frame it in this
 16 way.
 17 Would it be economically prudent to spend
 18 this amount of money to get up to those industry
 19 standards in that period of time?
 20 **A.** Yes, it would be. We did a rate analysis
 21 in which we showed that the City could make that
 22 type of investment, without having to raise rates,
 23 over ten years.
 24 **Q.** So that means that by making these kinds
 25 of investments there would be a cost savings in

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1 terms of operating the system so that the rates
2 would be unaffected?
3 **A.** That's correct.
4 **Q.** So in a cost/benefit kind of an analysis
5 way these expenditures representing the costs are
6 matched by the benefits.
7 **A.** Correct.
8 **Q.** Discounted--
9 **A.** Yes.
10 **THE COURT:** Mr. Doherty, any questions?
11 **EXAMINATION**
12 **BY COMM. DOHERTY:**
13 **Q.** Yeah. Mr. Close, following up on Dick's
14 question about economically prudent to make the
15 investments.
16 We heard testimony and the number of--the
17 number that sticks in my head about the cost of
18 leakage was \$600,000 a year, representing 3
19 percent of income or revenue for Mountain Water.
20 Therefore, Mountain Water--Mountain
21 Water's contention was it wouldn't be economically
22 prudent, or they don't have to worry that much
23 about the leakage because it's a very, very tiny
24 part of the increased cost due to the waste of the
25 water. What do you think about that?

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1 **A.** Well, I think that--you reach a certain
2 point, and I think they have reached and exceeded
3 that, where you have to keep--as the leakage
4 continues, you've got to go and build more wells,
5 more piping to connect it to the system from the
6 leakage standpoint. That's got to go into rate
7 base. They have to earn on that.
8 Plus the operating expense. The \$600,000
9 a year of just power costs that it costs to pump
10 it out of the ground to put it back down into the
11 ground. To me, as the system deteriorates and
12 continues to do that, those costs are going to go
13 up.
14 You have to fix the pipe at some point.
15 It cannot go on forever without having to fix it
16 at some point. You can't--you can do an economic
17 analysis in the short-term, but the long-term, you
18 have to fix it. You can't go until it's 80,
19 90 percent, 100 percent, 99.9 percent leakage and
20 you put wells every 20 feet down the basin. It's
21 not rational to do that.
22 They have reached the point. And the
23 indexes from the AWWA index has indicated they
24 have reached that point. The ILI Index is kind of
25 a way to compare one agency to another agency of

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1 when you have to start making those improvements,
2 and they have far exceeded that.
3 To me, it's economically imperative they
4 start replacing main to reduce leakage at a much
5 higher right than they have historically or have
6 planned to do.
7 **Q.** Thank you.
8 **THE COURT:** Anything else, Mr. Doherty?
9 **COMM. DOHERTY:** No.
10 **THE COURT:** Mr. Higgins, any questions?
11 **EXAMINATION**
12 **BY COMM. HIGGINS:**
13 **Q.** So, yeah, I'll just have a follow-up
14 question on that.
15 So I think what I heard you just say is,
16 so they have to take action to reduce the leakage
17 at a much higher rate than they historically have.
18 **A.** Correct.
19 **Q.** And I thought, did we--now, I don't know
20 if you were here or not. But I thought I heard
21 testimony earlier this week where Mr. McInnis, I
22 think, testified to the fact that they planned to
23 increase the rate at which they were replacing
24 mains. Were you here for that?
25 **A.** I wasn't here for that, but I've seen

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1 that in their work. They are talking about
2 increasing it to, you know, approximately two to
3 three miles a year, which will take 100 years to
4 replace the system.
5 **Q.** For the whole system.
6 **A.** For the whole system. But as you do
7 that, the pipe continues to get older. To be able
8 to do that at a renewal rate, is far below what's
9 necessary to catch up for how much deferred
10 capital investment they've made.
11 **Q.** Okay. And then I had a question because
12 I'm--I was doing the numbers just in my head here.
13 I don't have a calculator. But I wanted to go
14 back to the rating system for the wells.
15 **A.** Uh-huh.
16 **Q.** Did I hear you correctly that you said
17 the wells were rated poor?
18 **A.** Fair to poor.
19 **Q.** Fair to poor. So 3 to 2.
20 **A.** 3 to 2.
21 **Q.** So just my quick math, arithmetic
22 average, I get something greater than 3 on that
23 list.
24 **A.** I would have to go back and do the
25 weighting in terms of the size of the wells.

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1 Q. Like I said, I just--I did it in my head
2 and I kind of divvied it up a number of different
3 ways. Would that--I mean, is it possible that
4 it's 3 to slightly over 3?
5 A. I'll concede that on a numbers basis,
6 yeah.
7 Q. This kind of stuff is just kind of
8 housekeeping.
9 I want to make sure I understand what you
10 are calling useful life. And that's the cost of
11 the equipment less the depreciation on the books.
12 Is that right?
13 A. Well, useful life is the estimated number
14 of years that when you first put in an asset, you
15 put in a useful life of the asset, if it's
16 50 years, 70 years. If you use straight-line
17 depreciation, you depreciate it over that period
18 of time.
19 On condition-based depreciation, you
20 project where it is, how much additional useful
21 life from the condition it is now to when do you
22 think it will need to be replaced.
23 Q. Okay.
24 A. That's the remaining useful life out
25 there to be able to do that, and you actually

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1 project that as part.
2 And then on condition-based depreciation,
3 you then change and depreciate. Rather than
4 straight-line on the original, you depreciate it
5 over that changed or remaining useful life. It
6 could be less than the original, it could be
7 greater than the original useful life that was put
8 on the books. But you can't change the percentage
9 of the amount of what's already been depreciated.
10 Q. I understand that. So if I buy something
11 for \$100, it has 50 years of life and I just do
12 straight-line depreciation, that's \$2 a year,
13 right?
14 A. Uh-huh.
15 Q. If I'm ten years into it, I've
16 depreciated it \$20, so now it's worth 80. But
17 what's the useful life?
18 A. Depending on the condition --
19 Q. I see.
20 A. -- it could be ten years, it could be 70
21 years, it could be five years.
22 Q. Could it be more than 80?
23 A. It could be more than 80.
24 Q. Okay. I'm also--I've got some personal
25 experience in this. When companies that I've

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1 worked for have depreciated things to zero on the
2 books, there is also a salvage value.
3 Is that--does that mean--in your opinion,
4 is the salvage value, value for that asset, versus
5 zero?
6 A. You could if there is a market for that
7 salvage.
8 Q. Well, of course, right.
9 A. There has to be a market for it, yes.
10 Q. In your experience in the water industry,
11 when you've removed piping and appurtenances and
12 stuff like that, did you--is it standard practice
13 to try to recoup any salvage value from those,
14 those types of equipment?
15 A. It is for piping and things. But it's
16 unusual to pull it out of the ground because of
17 the cost of removal.
18 Q. You just abandon it in place?
19 A. You abandon it in place. Most piping is
20 abandoned in place.
21 But something like a pipe or above
22 ground, you know, there is the combination of if
23 there is a market, you can salvage it. But you
24 also have to take into account the cost of
25 removal, what does it cost to remove it, plus

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1 what's the cost of disposal if you can't sell it.
2 And we haven't put that into the factor either.
3 Q. Okay. I think that's all I have. Thank
4 you.
5 **THE COURT:** Thank you.
6 Counsel, any questions in light of the
7 commissioners' questions?
8 **REDIRECT EXAMINATION**
9 **BY MS. JONES:**
10 Q. Just one question in response to
11 Mr. Higgins.
12 For each well did you actually do an
13 independent assessment of each component part of
14 the well?
15 A. Yes, we did.
16 Q. Did you separately rate each of those?
17 A. Yes, we did.
18 Q. So would you need that information to
19 actually get a weighted average?
20 A. You would have to go back and look at all
21 the asset classes to really kind of do an average
22 rather than just an arithmetic average. We did
23 this for purposes, but to go back and look at it,
24 we would have to look at all asset classes.
25 Q. And your testimony as based on that

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1 entire body of work, where would the wells fall?
 2 **A.** Yes.
 3 **Q.** Where would they fall?
 4 **A.** It's fair to poor.
 5 **THE COURT:** Mr. Conner.
 6 **RE-CROSS-EXAMINATION**
 7 **BY MR. CONNER:**
 8 **Q.** Yes. Mr. Barrett asked you a question
 9 regarding your--you said you did a rate
 10 analysis --
 11 **A.** Yes.
 12 **Q.** -- whether the City could pay for these
 13 over time.
 14 **A.** That's correct.
 15 **Q.** Isn't it true in your rate analysis you
 16 were instructed by the City to assume a purchase
 17 price of \$50 million for that analysis?
 18 **A.** That is correct.
 19 **Q.** So that's not a valuation you did,
 20 because you are not a valuation expert, correct?
 21 **A.** No, that was given to us.
 22 **Q.** So that's assuming then the City gets
 23 this system for 50 million, correct?
 24 **A.** Well, that particular analysis, yes.
 25 **Q.** Yes. Thank you.

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1 **THE COURT:** All right. May this witness
 2 be excused?
 3 **MS. JONES:** Yes.
 4 **MR. CONNER:** Yes.
 5 **MR. MERCER:** Yes.
 6 **THE COURT:** Thank you, Mr. Close. You
 7 are free to go.
 8 Additional witness for the City?
 9 **MS. JONES:** We are going to use the Skype
 10 at this time to call Tom Stevens.
 11 **THE COURT:** All right.
 12 Mr. Stevens, would you raise your right
 13 hand and be sworn, please.
 14 **THE WITNESS:** I'm sorry, I couldn't hear
 15 you.
 16 **THE COURT:** Would you raise your right
 17 hand and be sworn.
 18 Thereupon,
 19 THOMAS STEVENS, MAI,
 20 having been first duly sworn to tell the truth,
 21 testified upon his oath as follows:
 22 **THE COURT:** So, Mr. Stevens, then have a
 23 seat. Please state your full name, spell your
 24 last name for us.
 25 **THE WITNESS:** Full name, Thomas, middle

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1 initial G, Stevens. S-T-E-V-E-N-S.
 2 **THE COURT:** All right, thank you. You
 3 may inquire, Ms. Jones.
 4 **DIRECT EXAMINATION**
 5 **BY MS. JONES:**
 6 **Q.** Mr. Stevens, can you hear me?
 7 **A.** Just barely.
 8 **Q.** How about now?
 9 **A.** That's better, yes.
 10 **Q.** Okay. What is your profession? What do
 11 you do for work, Mr. Stevens?
 12 **A.** I'm sorry, you are cutting out. I can't
 13 hear you very well.
 14 **Q.** How about now?
 15 **A.** That's better, yes, thank you.
 16 **Q.** What do you do for work, Mr. Stevens?
 17 **A.** What?
 18 **Q.** What do you do for work?
 19 **A.** This is not working all that well. I'm
 20 going to try to turn on a different thing, if you
 21 don't mind, so I can hear you.
 22 **THE COURT:** So, Tasha, I think perhaps
 23 the best thing to do is to just do this by
 24 telephone. Are there exhibits that he's going to
 25 have to use?

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1 **MS. JONES:** No.
 2 **MR. CONNER:** Well, Your Honor--
 3 **A.** I can hear well now.
 4 **MR. CONNER:** --there may be exhibits I
 5 need to use.
 6 **THE COURT:** So you are hearing me all
 7 right, Tom; is that right?
 8 **THE WITNESS:** Yes, ma'am, I am.
 9 **THE COURT:** I wonder if you can just get
 10 close to the phone.
 11 **Q.** (By Ms. Jones) Tom, can you hear me?
 12 **A.** Yes, I can.
 13 **Q.** Can you tell the commissioners what you
 14 do for work.
 15 **A.** Oh, I am a professional real estate
 16 appraiser.
 17 **Q.** Were you hired to review the consulting
 18 expert report prepared by Steve Hall?
 19 **A.** Yes, I was.
 20 **Q.** And did you also complete an appraisal of
 21 the 68 parcels of property?
 22 **A.** I did. During my review process under
 23 Standard Rule 3 of the Uniform Standards of
 24 Professional Appraisal Practice, as a reviewer if
 25 I find a report deficient, I'm allowed to render