

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF THE CITY OF ANDERSON, INDIANA )  
(1) FOR AUTHORITY AND APPROVAL TO )  
INCREASE RATES AND CHARGES FOR WATER )  
SERVICE, INCLUDING APPROVAL OF NEW )  
SCHEDULE(S) OF RATES AND CHARGES FOR )  
WATER SERVICE, AND (2) FOR AUTHORITY AND )  
APPROVAL TO ISSUE BONDS, NOTES, OR OTHER )  
OBLIGATIONS OF INDEBTEDNESS )

CAUSE NO. 44510

SETTLEMENT TESTIMONY OF

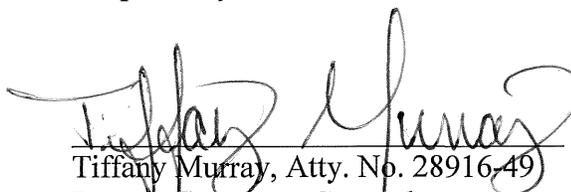
SCOTT A. BELL – PUBLIC’S EXHIBIT NO. 1

ON BEHALF OF THE

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

NOVEMBER 25, 2014

Respectfully submitted,

  
Tiffany Murray, Atty. No. 28916-49  
Deputy Consumer Counselor

**SETTLEMENT TESTIMONY OF OUCC WITNESS SCOTT A. BELL**  
**CAUSE NO. 44510**  
**CITY OF ANDERSON MUNICIPAL WATER UTILITY**

**I. INTRODUCTION**

1 **Q: Please state your name and business address.**

2 A: My name is Scott A. Bell, and my business address is 115 West Washington Street, Suite  
3 1500 South, Indianapolis, Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor (OUCC) as the  
6 Director of the Water/Wastewater Division.

7 **Q: Please describe your educational background and experience.**

8 A: I graduated from Purdue University with a Bachelor of Science degree in Industrial  
9 Management, with a minor in Industrial Engineering. I began working for the Indiana  
10 Utility Regulatory Commission (Commission or IURC) in 1988 as a Staff Engineer. In  
11 1990, I transferred to the OUCC at the time of the reorganization of the Commission and  
12 the OUCC. In 1999, I was promoted to the position of Assistant Director and in 2005 I  
13 was promoted to the position of Director of the Division. During my term as Director, I  
14 have served on the Water Shortage Task Force, created by SEA 369 in the 2006 General  
15 Assembly and the Water Resources Task Force, created by HEA 1224 in the 2009  
16 General Assembly. I attended numerous utility related seminars and workshops  
17 including the Western Utility Rate Seminar sponsored by the National Association of  
18 Regulatory Utility Commissioners (NARUC). I also completed additional coursework  
19 regarding water and wastewater treatment at Indiana University-Purdue University at  
20 Indianapolis (IUPUI).

1 **Q: Have you previously testified before the Commission?**

2 A: Yes. I have testified in many causes relating to telecommunications, natural gas, electric,  
3 water, and wastewater utilities. During the past fourteen years, I have testified  
4 exclusively on water and wastewater utility issues. Some of those issues included the  
5 reasonableness of cost of service studies, rate design, fair value, Replacement Cost New  
6 Less Depreciation (RCNLD) studies, engineering-related operation and maintenance  
7 expenses, capital improvement projects, and water conservation.

8 **Q: Please describe the review and analysis you conducted to prepare your testimony.**

9 A: I reviewed Anderson Municipal Water Utility's (Anderson, Petitioner, or Utility)  
10 Petition. I reviewed the testimony and exhibits of Mr. Thomas A. Brewer and Mr. Robert  
11 E. Curry. I reviewed documents filed in several of Petitioner's prior rate cases. I  
12 participated in the drafting of discovery questions and reviewed the Utility's responses to  
13 discovery. On September 18, 2014, along with OUCC analysts James Parks, Hal Rees,  
14 and Greg Foster, I visited some of the Utility's facilities and met with representatives of  
15 the Utility to discuss issues in the case.

16 **Q: Has the OUCC and Petitioner entered into a Joint Settlement Agreement?**

17 A: Yes. The OUCC and Petitioner (collectively, the Settling Parties or Parties) entered into  
18 a Joint Stipulation and Settlement Agreement (Settlement) that describes specific  
19 commitments by the Utility. My testimony describes terms of the settlement agreement  
20 and explains why those terms are in the public interest.

## II. EXECUTIVE SUMMARY

21 **Q: What do you address in your testimony?**

22 A: The Settlement will resolve all of the issues before the Commission in this Cause. My  
23 testimony discusses certain portions of the Settlement and explains why the Settlement is

1 in the public interest. In particular, I discuss how certain agreed provisions will promote,  
2 in the long-term, the provision of quality reliable water service. Petitioner serves over  
3 20,000 residential, commercial and industrial customers in and around Anderson,  
4 Indiana. Anderson has conveyed the Utility's desire to make significant improvements to  
5 its system to ensure safe, adequate, and reliable service to its customers at reasonable  
6 rates. The Parties agree that in order to meet the financial, technical and managerial  
7 challenges the Utility faces, Petitioner should develop several plans, starting with a  
8 strategic plan that will establish and set forth the Utility's goals, strategies, objectives,  
9 and key performance indicators. The Parties also agree that the development of an asset  
10 management plan will allow the Utility to gather information about the water-system  
11 assets, and enable the Utility to manage the risks of possible failures and operate the  
12 assets in the most cost-effective manner. An asset management plan can include  
13 recommended strategies for maintaining, renewing, or replacing assets. Petitioner has  
14 agreed to comply with AWWA G200 Standards regarding the inspection and proper  
15 maintenance of its water storage tanks. Acknowledging that its water demand  
16 characteristics have changed significantly due to the addition of Nestlé as a customer,  
17 Petitioner has also agreed to perform and present a Cost of Service Study in its next  
18 general rate case. Petitioner has also agreed to evaluate its smart grid system to identify  
19 cost-effective customer benefits and implement them if reasonably possible.

### **III. EFFECTIVE UTILITY MANAGEMENT AND STRATEGIC PLANNING**

20 **Q: Is there authoritative literature regarding a framework for effective water and**  
21 **wastewater utility management?**

22 **A: Yes.** In 2007, the United States Environmental Protection Agency (USEPA) and six

1 national water and wastewater associations, entered into an agreement to jointly promote  
2 effective utility management based on the *Ten Attributes of Effectively Managed Water*  
3 *Sector Utilities* and five *Keys to Management Success*.<sup>1</sup> As a result, in June 2008 these  
4 parties created a document titled Effective Utility Management, A Primer for Water and  
5 Wastewater Utilities (EUM Primer).<sup>2</sup> The EUM Primer describes a framework for utility  
6 management that would result in effective management and identifies the following “Ten  
7 Attributes of Effectively Managed Water Sector Utilities”:

- 8 1. Product Quality
- 9 2. Customer Satisfaction
- 10 3. Employee and Leadership Development
- 11 4. Operational Optimization
- 12 5. Financial Viability
- 13 6. Infrastructure Stability
- 14 7. Operational Resiliency
- 15 8. Community Sustainability
- 16 9. Water Resource Adequacy
- 17 10. Stakeholder Understanding and Support (pages 4 -5)

18 The EUM Primer also identifies the “The Keys to Management Success” that are  
19 comprised of frequently used management approaches and systems to help water and  
20 wastewater utilities manage more effectively. The Keys to Management Success are:

- 21 1. Leadership
- 22 2. Strategic Business Planning
- 23 3. Organizational Approaches
- 24 4. Measurement
- 25 5. Continual Improvement Management Framework (pages 6 – 9)

26 **Q: How could Petitioner’s management use the EUM Primer?**

27 **A:** Utility managers and stakeholders can use the Effective Utility Management Primer in a

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<sup>1</sup> The other associations include the Association of Metropolitan Water Agencies (AMWA), the American Public Works Association (APWA), the American Water Works Association (AWWA), National Association of Clean Water Agencies (NACWA), National Association of Water Companies (NAWC), and the Water Environment Federation (WEF)

<sup>2</sup> The EUM Primer can be accessed at the following web address: <http://watereum.org/resources/interactive-primer/>.

1 number of ways:

2 At one end of the spectrum, the Primer can educate utility staff and  
3 stakeholders regarding the range of responsibilities faced by water and  
4 wastewater managers. At the other end of the spectrum, it can provide a  
5 framework for a utility's long-term strategic planning efforts. Regardless  
6 of where a utility is in the spectrum, this Primer can help integrate the  
7 Attributes of effective utility management with existing strategic,  
8 business, and/or asset management plans. All water and wastewater  
9 utilities can benefit from applying this Primer.

10 Each utility has unique management opportunities and challenges, and this  
11 Primer provides guidelines and tools that are relevant to any utility, re-  
12 gardless of size, budget, or circumstance. This Primer's aim is to support  
13 all water and wastewater utilities in their common mission of being  
14 successful 21<sup>st</sup> century service providers. (EUM Primer, p. 2)

15 **Q: Would the Effective Utility Management Primer be valuable resource for**  
16 **Petitioner's management?**

17 A: Yes. The Utility's superintendant, Mr. Brewer, has recently retired. Petitioner's new  
18 management should assess the current state of affairs and use the Effective Utility  
19 Management Primer as a guide and tool as the Utility develops its strategic plan and asset  
20 management plan.

21 **Q: Does Petitioner have a strategic plan?**

22 A: No. Petitioner acknowledged this in response to the OUCC's request for a copy of its  
23 strategic plan.

24 **Q: Why is it important that Anderson Municipal Water develop a strategic plan?**

25 A: Like many mid-sized municipal water utilities, Anderson faces many challenges. The  
26 United States Environmental Protection Agency (USEPA) published the Strategic  
27 Planning: A Handbook for Small Water Systems (EPA 816-R-03-015),<sup>3</sup> which at page 2  
28 discusses why it is important to develop a strategic plan:

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<sup>3</sup> Strategic Planning: A Handbook for Small Water Systems (EPA 816-R-03-015) can be accessed at the following web address: [http://www.epa.gov/ogwdw/smallsystems/pdfs/guide\\_smallsystems\\_stratplan.pdf](http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_stratplan.pdf).

1 The U.S. drinking water industry is facing many key challenges in the 21<sup>st</sup>  
2 century. These include replacing aging infrastructure, meeting extensive  
3 regulatory requirements, operating in an environment with increased  
4 competition and public expectations, and ensuring system security and  
5 safety.

6 To meet these challenges and continue to provide a safe and reliable water  
7 supply, systems will need to be prepared and ensure that technical,  
8 managerial, and financial structures can respond to changing  
9 circumstances. Strategic planning can help prepare your water system to  
10 meet challenges and maintain organizational and financial stability in an  
11 uncertain future.

12 Petitioner's water system suffers from aging infrastructure, high non-revenue water  
13 (NRW), loss of key personnel to retirement, and a lack of a formal strategic plan and  
14 asset management plan. A strategic plan will provide Petitioner with overall direction on  
15 how to achieve future success by defining goals, objectives, strategies, key performance  
16 indicators (KPIs), benchmarks, and capital improvement plans that will be necessary to  
17 successfully address the challenges faced by the Utility.

18 **Q: Has Petitioner agreed to conduct a strategic plan?**

19 A: Yes. In the Settlement, Petitioner agreed to develop a Strategic Plan within eighteen (18)  
20 months of the issuance of the final order in this cause.

21 **Q: What is a strategic plan?**

22 A: A strategic plan provides a framework for decision making by assessing current  
23 conditions, strengths and weaknesses; assessing underlying causes and effects; and  
24 establishing vision, objectives, and strategies. The EUM Primer "establishes specific  
25 implementation steps that will move a utility from its current level of performance to  
26 achieving its vision." (EUM Primer, p. 6.) The EUM Primer further states, "When  
27 developed, the strategic business plan will drive and guide utility objectives,  
28 measurement efforts, investments, and operations." (EUM Primer, p.6 -7.) "A strategic

1 plan can help explain the utility's conditions, goals, and plans to staff and stakeholders,  
2 stimulate change, and increase engagement in improvement efforts." (*Id.*)

3 **Q: Do you know of other resources Petitioner can use to develop a strategic plan?**

4 A: Yes. In addition to the EUM Primer, I recommend Petitioner obtain the following free  
5 documents from USEPA ([www.epa.gov](http://www.epa.gov)) to assist in the development of a strategic plan.

- 6 • Strategic Planning: A Handbook for Small Water Systems (EPA 816-R-03-015).
- 7 • Moving Toward Sustainability: Sustainable and Effective Practices for Creating  
8 Your Water Utility Roadmap<sup>4</sup>.
- 9 • Planning for Sustainability: A Handbook for Water and Wastewater Utilities  
10 (February 2012) (EPA-832-R-12-001)<sup>5</sup>
- 11 • Resource Guide to Effective Utility Management and Lean: Improving  
12 Performance and Addressing Key Management Priorities at Water-Sector Utilities  
13 (October 2012)<sup>6</sup>

14 **Q: Do you have any examples of water utility strategic plans?**

15 A: Yes. I recommend Petitioner review the Strategic Plan for East Bay Municipal Utility  
16 District, Oakland, California (July 2014)<sup>7</sup> and the DC Water Blue Horizon 2020 Strategic  
17 Plan.<sup>8</sup> Both documents provide excellent examples of municipal entities that have gone  
18 through the strategic planning process and developed strategic plans that will guide their  
19 organizations as they move forward. In addition to the EUM Primer and the USEPA  
20 documents, Anderson should consider these two examples when developing its strategic  
21 plan.

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<sup>4</sup> Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap can be accessed at the following web address: <http://water.epa.gov/infrastructure/sustain/upload/Practices-Roadmap-FINAL-4-2-14.pdf>

<sup>5</sup> Planning for Sustainability: A Handbook for Water and Wastewater Utilities (February 2012) (EPA-832-R-12-001) can be accessed at the following web address: <http://water.epa.gov/infrastructure/sustain/upload/EPA-s-Planning-for-Sustainability-Handbook.pdf>

<sup>6</sup> Resource Guide to Effective Utility Management and Lean: Improving Performance and Addressing Key Management Priorities at Water-Sector Utilities (October 2012) can be accessed at the following web address: <http://www.epa.gov/lean/environment/pdf/eum-lean-guide.pdf>

<sup>7</sup> The Strategic Plan for East Bay Municipal Utility District, Oakland, California (July 2014) can be accessed at the following web address: <https://www.ebmud.com/sites/default/files/pdfs/strategic-plan-july-2014.pdf>

<sup>8</sup> The DC Water Blue Horizon 2020 Strategic Plan can be accessed at the following web address: <http://www.dewater.com/news/publications/blue%20horizon%202020%20strategic%20plan%20final.pdf>

#### IV. ASSET MANAGEMENT

1 **Q: Does Petitioner currently have an asset management plan?**

2 A: No. Petitioner acknowledged it has no asset management plan in response to OUCC  
3 discovery. Petitioner also acknowledged it has no asset management system.

4 **Q: Has Petitioner agreed to conduct an asset management plan?**

5 A: Yes. In the Settlement, Petitioner agrees that within eighteen (18) months of the final  
6 order in this cause, it will establish an asset management team to develop a written asset  
7 management plan that includes: (a) an asset condition assessment for  
8 renewal/replacement planning, (b) valve database, (c) valve exercising program, (d) small  
9 diameter water main and steel water main replacement program, (e) water main and  
10 service line database, and (f) development or purchase, and implementation, of a  
11 Computerized Maintenance Management System (CMMS).

12 **Q: What is asset management?**

13 A: According to the USEPA's *Asset Management: A Best Practices Guide*,<sup>9</sup> asset  
14 management involves "maintaining a desired level of service for what you want your  
15 assets to provide at the lowest life cycle cost." (p. 1.) The Guide adds that "Lowest life  
16 cycle cost refers to the best appropriate cost for rehabilitating, repairing or replacing an  
17 asset." (p. 1.) Asset management is implemented through "an asset management program  
18 and typically includes a written asset management plan." (p. 1.)

19 **Q: Why is asset management important?**

20 A: McGraw Hill Construction's SmartMarket Report titled: *Water Infrastructure Asset*  
21 *Management: Adopting Best Practices to Enable Better Investments* (SmartMarket

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<sup>9</sup> *Asset Management: A Best Practices Guide* can be accessed at the following web address:  
[http://www.epa.gov/ogwdw/smallsystems/pdfs/guide\\_smallsystems\\_assetmanagement\\_bestpractices.pdf](http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf)

1 Report)<sup>10</sup> discusses the importance of Asset Management:

2 The industry is increasingly recognizing that asset management practices  
3 allow water utilities to serve their customers more effectively by  
4 encouraging greater financial, social and environmental responsibility. A  
5 holistic asset management program can help water utilities make better  
6 investment decisions for the challenges that they face, including increasing  
7 capital-funding needs created by growing demands for their services, the  
8 ability to fulfill strict environmental regulations, and the risk of reduced  
9 funding due to budgetary concerns at the federal level. (p. 5.)

10 **Q: Does the SmartMarket Report discuss asset management practices?**

11 A: Yes. The SmartMarket Report identifies 14 asset management practices that are used to  
12 gauge the level of asset management adoption by water utilities in the United States and  
13 Canada. According to the SmartMarket Report, on the spectrum of asset management  
14 practitioners, high-level practitioners use between 10 – 14 practices, medium-level  
15 practitioners use between 7 – 9 practices, and low-level practitioners use between 4 – 6  
16 practices. According to the SmartMarket Report (p. 25), a formal asset-condition  
17 assessment program for the renewal and replacement of infrastructure is the top asset  
18 management strategy for allocating funds for repair, maintenance and replacement of  
19 existing assets.

20 **Q: What steps should Petitioner take to address asset management?**

21 A: Water utilities should consider the following steps when developing an asset management  
22 program:

- 23 • Commence asset management activities by developing a plan
- 24 • Establish an interdepartmental asset management team, including senior  
25 management
- 26 • Establish levels of service and key performance indicators for the water utility
- 27 • Create an inventory of assets throughout the utility

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<sup>10</sup> *Water Infrastructure Asset Management: Adopting Best Practices to Enable Better Investments* can be accessed at the following website: <http://construction.com/images/cms/events/pdfs/MHC-Water-Infrastructure-Asset-Management-SMR-2013.pdf>

- 1 • Design a business risk assessment program, considering assets to be managed and
- 2 how they might fail
- 3 • Begin using data to establish the remaining life of water utility assets.
- 4 • Record all breaks and failure, including leaks.
- 5 • Consider condition assessment activities to gauge current condition of assets
- 6 • Plan renewal activities based on the best possible evaluation of the water utility
- 7 • Continuously improve asset management activities.<sup>11</sup>

8 **Q: Do you know of other resources Petitioner can use to develop an asset management**  
9 **plan?**

10 **A:** Yes. Petitioner may obtain the following documents to assist in the development of an  
11 asset management plan.

- 12 • Asset Management: A Best Practices Guide (EPA 816-F-08-014)<sup>12</sup>
- 13 • Asset Management: A Handbook for Small Water Systems (EPA 816-R-03-
- 14 016)<sup>13</sup>
- 15 • Asset Management for Local Officials (EPA 816-F-08-015)<sup>14</sup>
- 16 • Building an Asset Management Team (EPA 816-F-08-016)<sup>15</sup>
- 17 • Reference Guide for Asset Management Tools: Asset Management Plan
- 18 Components and Implementation Tools for Small and Medium sized Drinking
- 19 Water and Wastewater Systems (EPA 816-B-14-001)<sup>16</sup>
- 20 • Asset Management Elements & Background Fact Sheet: An Overview of Major
- 21 Issues in Asset Management (Water Research Foundation)<sup>17</sup>
- 22 • Implementing Asset Management: A Practical Guide (Association of

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<sup>11</sup> The Asset Management Elements & Background Fact Sheet: An Overview of Major Issues in Asset Management, prepared by the Water Research Foundation (WEF). The Asset Management Elements & Background Fact Sheet can be accessed at the following website: <http://www.waterrf.org/knowledge/asset-management/FactSheets/AssetMgt-ElementsBackground-FactSheet.pdf>

<sup>12</sup> Asset Management: A Best Practices Guide (EPA 816-F-08-014) can be accessed at the following web address: [http://www.epa.gov/ogwdw/smallsystems/pdfs/guide\\_smallsystems\\_assetmanagement\\_bestpractices.pdf](http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf).

<sup>13</sup> Asset Management: A Handbook for Small Water Systems (EPA 816-R-03-016) can be accessed at the following web address: [http://www.epa.gov/ogwdw/smallsystems/pdfs/guide\\_smallsystems\\_asset\\_mgmt.pdf](http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_asset_mgmt.pdf).

<sup>14</sup> Asset Management for Local Officials (EPA 816-F-08-015) can be accessed at the following web address: [http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/upload/guide\\_smallsystems\\_assetmanagement\\_localofficials.pdf](http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/upload/guide_smallsystems_assetmanagement_localofficials.pdf).

<sup>15</sup> Building an Asset Management Team (EPA 816-F-08-016) can be accessed at the following web address: [http://water.epa.gov/type/watersheds/wastewater/upload/guide\\_smallsystems\\_assetmanagement\\_teammanagement.pdf](http://water.epa.gov/type/watersheds/wastewater/upload/guide_smallsystems_assetmanagement_teammanagement.pdf).

<sup>16</sup> Reference Guide for Asset Management Tools: Asset Management Plan Components and Implementation Tools for Small and Medium sized Drinking Water and Wastewater Systems (EPA 816-B-14-001) can be accessed at the following web address: <http://water.epa.gov/type/drink/pws/smallsystems/upload/epa816b14001.pdf>.

<sup>17</sup> Asset Management Elements & Background Fact Sheet: An Overview of Major Issues in Asset Management (Water Research Foundation) can be accessed at the following web address: <http://www.waterrf.org/knowledge/asset-management/FactSheets/AssetMgt-ElementsBackground-FactSheet.pdf>.

1 Metropolitan Water Agencies (AMWA), National Association of Clean Water  
2 Agencies (NACWA) and the Water Environment Federation (WEF)) (2007)<sup>18</sup>

- 3 • Condition Assessment Program Essentials (Ahmad Habibian and James Strayer)  
4 AWWA Journal – September 2013, pp. 71-75
- 5 • An Integrated Approach to Asset Management and Sustainability to Achieve Best  
6 Management Practices Through a Triple Bottom Line Approach (Priscilla  
7 Bloomfield, CH2M Hill, Lindsay Ritter, CH2M Hill, and John Fortin, CH2M  
8 Hill)<sup>19</sup>
- 9 • Water Infrastructure Asset Management: Adopting Best Practices to Enable  
10 Better Investments (McGraw Hill Construction SmartMarket Report)
- 11 • Example: Asset Management Planning at the Portland Water Bureau (June  
12 2013)<sup>20</sup>

13 **Q: Has Anderson historically experienced water main breaks and leakage problems**  
14 **with its small diameter steel water mains?**

15 A: Yes. Of the 303 water main breaks reported from 2011 to 2013, 226 or 75% occurred in  
16 water mains that are 2-inch diameter or smaller. Anderson's corrosion and leakage  
17 problems from its small diameter steel water mains are well documented in Commission  
18 cases over the last 37 years. In all the rate cases from 1977 (Cause No. 34839) to 2006  
19 (Cause No. 42914), evidence has been presented that indicate the galvanized steel water  
20 mains were the cause of many of the water leaks and that Anderson should address its  
21 water loss by replacing these older steel water mains.

22 **Q: What do you conclude about Anderson's small diameter water mains?**

23 A: Anderson's small diameter water mains are undersized and a known continuing major  
24 source of water loss problems within its distributions system. The Settling Parties agree

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<sup>18</sup> Implementing Asset Management: A Practical Guide (Association of Metropolitan Water Agencies (AMWA), National Association of Clean Water Agencies (NACWA) and the Water Environment Federation (WEF)) (2007) is available for purchase at the following web address:

<https://www.e-wef.org/Default.aspx?TabID=251&productId=4130>.

<sup>19</sup> An Integrated Approach to Asset Management and Sustainability to Achieve Best Management Practices Through a Triple Bottom Line Approach (Priscilla Bloomfield, CH2M Hill, Lindsay Ritter, CH2M Hill, and John Fortin, CH2M Hill) can be accessed at the following web address: [http://ch2mhillblogs.com/water/wp-content/uploads/2013/05/Paper\\_IntegratedApproachtoAssetMgmtandSustainability\\_BloomfieldRitterFortin.pdf](http://ch2mhillblogs.com/water/wp-content/uploads/2013/05/Paper_IntegratedApproachtoAssetMgmtandSustainability_BloomfieldRitterFortin.pdf).

<sup>20</sup> Asset Management Planning at the Portland Water Bureau (June 2013) can be accessed at the following web address: <https://www.portlandoregon.gov/water/article/473693> (Last accessed Nov. 7, 2014).

1 Anderson shall develop and implement a long-term plan to replace smaller water mains.  
2 This asset management program should include a water main database to track water  
3 main types, age, and diameters so that Anderson can accurately measure its progress.  
4 The water main database is also needed for the water audits Anderson has agreed to  
5 perform annually on its water system in an effort to proactively address non-revenue  
6 water.

7 **Q: Has Petitioner agreed to include an asset condition assessment for**  
8 **renew/replacement planning as part of its asset management plan?**

9 A: Yes.

10 **Q: Will an asset condition assessment assist the Utility in addressing the replacement of**  
11 **its steel water mains?**

12 A: Yes. The asset management practice of conducting an Asset-Condition Assessment for  
13 Renew/Replacement Planning will enable Petitioner to assess the entire water distribution  
14 system to determine a priority list and develop a plan for the systematic replacement of  
15 water mains.

16 **Q: What is a valve exercising program and what are the benefits of such a program to a**  
17 **water utility?**

18 A: A valve exercising program is a routine program to check every valve on an ongoing  
19 basis to document each valve's condition and operability. This program will identify  
20 those valves that are broken, inoperable, frozen open or closed, damaged, corroded,  
21 leaking, covered up by paving, or otherwise lost and not accounted for so that they can be  
22 restored to operability or replaced with a new valve in a timely manner. Depending on  
23 water system size, valves can be exercised twice annually to once every 2 or 3 years.  
24 Valve exercising ensures valves can be closed in emergencies, such as water main breaks,  
25 to isolate the affected water mains or closed during routine maintenance of the water

1 distribution system. When damaged valves cannot be closed, operators must go further  
2 away from the leak to close additional valves until they can stop water from coming onto  
3 the leaking water main and effect repairs. Closing additional valves takes water service  
4 away from more customers than would otherwise be necessary. It also delays stopping a  
5 leak, which can cause it to worsen leading to a full break in the pipe. With a worsening  
6 pipe failure, additional damage is often done to surrounding utilities and roadways. Non-  
7 functioning valves also increase lost water volumes.

8 **Q: Has Petitioner agreed to create a valve database and valve exercising program as**  
9 **part of the Settlement Agreement?**

10 A: Yes.

#### V. OTHER STUDIES

11 **Q: What other studies has Petitioner agreed to complete as part of the Settlement?**

12 A: Petitioner has agreed to develop a Scope of Services and Study Schedule, consultant  
13 selection criteria and a solicitation process for the Qualification Based Selection (QBS) of  
14 consultants for (a) a hydraulic model, (b) a hydrogeological study, and (c) a water  
15 resources alternatives study.

16 **Q: Please describe Anderson's bond funding request for these studies.**

17 A: As part of the bond funding request, Anderson estimated that it would cost a total of  
18 \$760,000 for the three (3) separate engineering studies to include the following:

- 19 1. Hydrogeological Study for New Well Field at \$460,000
- 20 2. Water Resources Alternative Study for \$100,000
- 21 3. Hydraulic Model of Distribution System at \$200,000

22 The OUCC strongly supports Anderson's efforts to institute a hydraulic model as a way

1 to model and identify high and low pressure problem areas in its water distribution  
2 system. Modeling will help Anderson select system improvements needed to deliver  
3 water in the quantities needed to Anderson's southwest side to serve the Nestle plant  
4 while reducing water system pressures. Lowering system pressures is one of four key  
5 pillars in reducing non-revenue water lost through leaking water mains and service lines.

6 **Q: In procuring the hydraulic water model, is there anything Anderson should**  
7 **consider?**

8 A: Yes. Anderson itself should purchase and maintain in its name the license for the  
9 computerized hydraulic water model. Anderson's own water department staff should  
10 become actively involved in the model rather than be solely dependent on an outside  
11 consultant.

#### **VI. WATER STORAGE TANKS – AWWA G200-09 STANDARD**

12 **Q: Has Petitioner agreed to develop a plan for its water storage tanks and comply with**  
13 **the AWWA Standards regarding water storage tanks?**

14 A: Yes. Petitioner agreed in the Settlement that within eighteen (18) months of the final  
15 order in this Cause, Anderson will (a) work with a professional tank consultant to (i)  
16 develop a long-term tank maintenance prioritization plan and establish a forecasted  
17 maintenance schedule to assist in determining the financial cost to performing future tank  
18 maintenance, and (ii) develop the necessary documents, policies, and procedures to  
19 comply with the AWWA G200-09 Standard; and (b) comply with the AWWA G200-09  
20 Standard for Treated Water Storage Facilities, Section 4.3.1.

21 **Q: How many elevated water storage tanks are in Petitioner's distribution system?**

22 A: Petitioner has seven (7) elevated water storage tanks that have the capacity to store a total  
23 of approximately 6.5 million gallons of water. Attached to Mr. Curry's testimony is

1 Exhibit REC-1, the Preliminary Engineering Report (PER) for the City of Anderson  
2 Water Department. Section 2.1.4 of Chapter 2-19 includes a table showing the name and  
3 capacity of each of Petitioner's elevated water storage tanks.

4 **Q: Does the AWWA have a standard regarding operation and maintenance procedures**  
5 **for water storage facilities?**

6 A: Yes. Section 4.3.1.1 of the G200-09 Standard provides the standards for storage capacity  
7 for treated water storage facilities: "The utility shall establish minimum operating levels  
8 in storage facilities based on pressure in the distribution system, fire flow requirements,  
9 emergency storage requirements, and other site-specific conditions."

10 Section 4.3.1.2 of the G200-09 Standard provides the standards for operating  
11 procedures for treated water storage facilities:

12 The utility shall have written operating procedures, which address water  
13 level fluctuations in the storage facilities and turn-over rates. The utility  
14 shall have a goal to reduce water age in the finished water storage facility.  
15 The utility shall have a written policy in place that establishes the target  
16 turnover rate along with minimum and maximum operating levels.

17 Section 4.3.1.3 of the G200-09 Standard provides standards for inspection of treated  
18 water storage facilities:

19 The utility shall have a written inspection program outlining frequency,  
20 procedures and maintenance records. The inspection program shall  
21 include such features as routine (daily/weekly); periodic  
22 (monthly/quarterly); and comprehensive (3-5 years) inspections.

23 Section 4.3.1.4 of the G200-09 Standard provides the standards for maintenance of  
24 treated water storage facilities:

25 The utility shall have a maintenance program that includes periodic  
26 cleaning and refurbishing of facilities, as required. Cleaning of covered  
27 storage shall be based internal inspection conducted at a minimum of  
28 every 5 years and for uncovered reservoirs, at least annually. The utility  
29 shall perform a full internal and external inspection according to AWWA  
30 Manual M42. The utility shall conduct an external visual inspection of the

1 storage facility at least seasonally to assess and repair environmental  
2 damage and verify the integrity of vents and screens. The inspection shall  
3 include an assessment of the physical security of the facility. Maintenance  
4 activity, such as coating or painting, shall be based on ANSI/AWWA  
5 Standards D102 and D103.

6 **Q: When did Petitioner last consult with a professional water tank inspector to**  
7 **determine the condition of its water storage tanks?**

8 A: Petitioner responded to OUCC discovery that it last consulted with Tank Industry  
9 Consultants to review the condition of their water storage tanks in the following years:

10	Cross Street:	2002 Evaluated
11	Columbus Avenue:	1999 Evaluated
12	Fairview Tank:	1993 Evaluated
13	Rangeline Road:	2002 Evaluated
14	Tenth Street:	2001 Evaluated
15	Eighth Street:	1996 Evaluated
16	Park Road:	2013 Evaluated (Constructed in 2010)

17 **Q: Why is it important to comply with the AWWA G200-09 Standard for Treated**  
18 **Water Storage Facilities, Section 4.3.1?**

19 A: Petitioner's water storage tanks are an integral part of its distribution system. If they are  
20 not properly maintained and their condition is allowed to deteriorate, the quality of water  
21 delivered may not be safe for consumption, let alone of high quality.<sup>21</sup> The AWWA  
22 established this Standard as a best practice for operating and managing distribution  
23 system.

24 **Q: Does the Settlement address this standard?**

25 A: Yes. Petitioner has agreed to comply with the G200-09 Standard regarding Treated Water  
26 Storage Facilities because these best practices will enable the Utility to properly operate  
27 and maintain its water storage tanks. Petitioner has also agreed to work with its  
28 professional contractor to develop the necessary documents, policies and procedures to

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<sup>21</sup> AWWA Operational Guide to AWWA Standard G200, Distribution Systems Operation and Management, page 2.

1 comply with the AWWA G200-09 Standard.

**VII. WATER STORAGE TANK MAINTENANCE FUND**

2 **Q: Has Petitioner agreed to establish a water storage tank and well maintenance fund?**

3 A: Yes. Petitioner agreed to establish a tank and well maintenance fund, which is restricted  
4 for use only to pay the expenses associated with tank and well maintenance. However,  
5 the OUCC agreed the tank and well maintenance fund may be invaded in the event  
6 Anderson must resort to those funds to make its debt service payments on its outstanding  
7 debt subject to criteria and notice requirements. Anderson will begin funding the  
8 restricted well and tank maintenance fund starting on January 1, 2017.

9 **Q: Is water storage tank maintenance, inspection and painting typically considered an**  
10 **expense or a capital addition to utility plant?**

11 A: Water storage tank related expenses are typically considered as an annual operating and  
12 maintenance (O&M) expense. Water storage tank related expenses include expenses  
13 associated with periodic tank inspection, tank painting, and tank repair/maintenance.  
14 Because these expenses do not always occur on an annual basis for each storage tank,  
15 utilities typically establish a restricted account or sinking fund account that is funded  
16 annually through recovery as an O&M expense. Utilities typically amortize estimated  
17 periodic inspection costs, tank painting costs and tank repair/maintenance costs, to  
18 determine a reasonable annual water storage tank related expense. The money put into  
19 this restricted account monthly is dedicated to only pay for future water storage tank  
20 related expenses. Therefore, in theory, funds will be available to perform water storage  
21 tank inspection, painting, and repair/maintenance when needed.

22 **Q: What should Anderson's management be doing to ensure that its water storage**

1           **tanks are well maintained?**

2    A:    Petitioner's water storage tank consultant has a tank maintenance prioritization program  
3           that uses a computerized management tool to compare the relative overall condition of  
4           structures within the same system. TIC's tank maintenance program also includes  
5           provisions to estimate the cost of a forecasted maintenance schedule. Given Petitioner's  
6           water tank situation, the Settling Parties agree that the Utility will work with its water  
7           storage tank consultant to develop a long-term maintenance prioritization plan and  
8           establish a forecasted maintenance schedule to assist in determining the financial cost to  
9           performing future tank inspections, repairs/maintenance and painting.

10   **Q:    Does Petitioner propose to paint any water storage tanks in the future?**

11   A:    Yes. In response to OUCC Data Request No. 9.12, Petitioner anticipates painting its  
12       tanks in the following years:

13	Fairview Park	2016
14	Eighth Street	2017
15	Columbus Avenue	2018
16	Range Line Road	2020
17	East Tenth Street	2022
18	Cross Street	2023
19	Park Road	2030

20   **Q:    Have the OUCC and Petitioner agreed that Petitioner should recover water storage  
21       tank expense as an operation and maintenance expense revenue requirement?**

22   A:    Yes. However, because the cost to inspect, repair and paint water storage tanks will be  
23       unknown until a consultant can estimate the cost of the forecasted maintenance  
24       prioritization plan, the Settlement Schedules include \$195,772 in its operation and  
25       maintenance revenue requirement. This amount is the Tank Industry Consultants figure  
26       from the previous rate case.

27   **Q:    Should these funds be dedicated to pay for water storage tank related expenses?**

1 A: Yes. To ensure these funds are available in the future to pay for water storage tank  
2 related expenses, the OUCC and Petitioner agree the Utility will establish a water storage  
3 tank and well maintenance fund to deposit funds dedicated for tank maintenance.

4 **Q: Has the American Water Works Association (AWWA) created reference material to**  
5 **educate water utilities about the proper methods of operating and maintaining**  
6 **water storage tanks?**

7 A: Yes. The AWWA has created a Manual of Water Supply Practices (M42) for Steel  
8 Water-Storage Tanks, which discusses Routine Operation and Maintenance, and  
9 Professional Examination and Renovation of water storage tanks. Additionally, an  
10 AWWA article titled Best Practices Improve Storage Tank Performance and Reliability is  
11 another valuable reference document for Petitioner.<sup>22</sup>

12 **Q: Does Petitioner also incur on-going well maintenance costs that should be recovered**  
13 **through its revenue requirement?**

14 A: Yes. Petitioner incurred significant well-related maintenance costs during the test year.  
15 It is critical for Petitioner to conduct well rehabilitation and regular preventative  
16 maintenance to keep wells operating efficiently. Anderson agreed it will work with a  
17 professional well consultant to determine the annual cost of performing well maintenance  
18 on an ongoing basis.

19 **Q: Has Petitioner agreed to fund a tank and well maintenance fund?**

20 A: Yes. As mentioned above, the OUCC is concerned about the availability of funds to  
21 perform proper well maintenance. Therefore, Petitioner agreed to establish a tank and  
22 well maintenance fund, which will be restricted for use only to pay the expenses  
23 associated with tank and well maintenance. However, the OUCC agreed the tank and

---

<sup>22</sup> Best Practices Improve Storage Tank Performance and Reliability (AWWA Opflow, July 2012, p. 48-56) can be accessed at the following web address: <http://dx.doi.org/10.5991/OPF.2012.38.0037>.

1 well maintenance fund may be invaded in the event Anderson must resort to those funds  
2 to make its debt service payments on its outstanding debt subject to criteria and notice  
3 requirements. Petitioner will begin funding the restricted well and tank maintenance fund  
4 starting on January 1, 2017.

### **VIII. COST OF SERVICE**

5 **Q: Has Petitioner agreed to perform a Cost of Service Study in its next base rate case?**

6 A: Yes. As part of the Joint Settlement Agreement, Section VIII. Other Obligations of  
7 Anderson, Petitioner has agreed to conduct a Cost of Service Study for its next general  
8 water rate case before the Commission.

9 **Q: What is the purpose of a Cost of Service Study?**

10 A: In Petitioner's last general rate case, Petitioner retained the services of Mr. Kerry A.  
11 Heid, an independent rate consultant, to perform a Cost of Service Study. According to  
12 Mr. Heid's testimony, pages 6 – 7, the purpose of a cost of service study is as follows:

13 The basic premise in establishing fair and equitable rates is that rates  
14 should reflect the cost of providing service to each customer class. A cost  
15 of service study is the tool used to determine the cost of providing service  
16 to each customer class. Rates are then designed that attempt to recover  
17 revenues from each customer class that closely match the cost of  
18 providing service to each customer class.

19 The purpose of the cost of service study is to allocate the total cost of  
20 service (i.e. the total revenue requirement) to each customer class. The  
21 cost of service includes debt service, extensions and replacements,  
22 operation and maintenance expenses, and taxes. In the cost of service  
23 study, the total costs are allocated to the following customer classes:  
24 residential, commercial, industrial, large industrial, private fire protection  
25 and public fire protection. The cost of service allocation results in  
26 indications of the relative cost responsibilities of each customer class.

27 **Q: Why is it important for Petitioner to perform a Cost of Service Study in its next  
28 general rate case?**

29 A: Petitioner's last Cost of Service Study was performed in 2006. Since that time, Nestlé

1 built a production plant near Anderson and became a customer of the Utility. As  
2 indicated in Petitioner's Exhibit REC-1, Chapter 2-23, Table 2.5.2, Nestlé is reported to  
3 have consumed 636.1 million gallons of water in 2012, which represents 26.3% of the  
4 total water sold by Petitioner. Nestlé's water usage of 636.1 million gallons in 2012 is  
5 five (5) times the 125.6 million gallons used by the entire Large Industrial Class of  
6 customers of in 2006. The OUCC and Petitioner agree that Petitioner will present a cost  
7 of service study in its next general rate case.

### **IX. SMART GRID SYSTEM**

8 **Q: Does the City of Anderson rely on a smart grid water metering system?**

9 A: Yes. The City of Anderson entered into a contract with Johnson Controls, Inc. (JCI) to  
10 provide new water meters and smart grid or smart metering technologies. It is my  
11 understanding that these hardware and software technologies have enabled the utility to  
12 more efficiently read meters. However, there may be untapped potential in these  
13 technologies that Petitioner has not fully realized. According to the July 2014, AWWA  
14 Journal Article, An overview of smart water networks (pp. 68-74), smart water network  
15 like Petitioner's has the capability to provide significant benefits to water utility and its  
16 customers.<sup>23</sup> The article discusses how utilities can derive benefits from a smart water  
17 network (SWN) that relate to water quality monitoring, leak detection, pressure  
18 management, and energy management.

19 **Q: How can a smart water network improve water quality monitoring?**

20 A: Technologies exists that allow water utilities to install generic sensors that provide an

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<sup>23</sup> An overview of smart water networks (AWWA Journal, 2014, pp. 68 – 74) can be accessed at the following web address: <http://www.awwa.org/store/productdetail.aspx?productid=46003654> (Last accessed Nov. 7, 2014).

1 online water quality monitoring system to provide continuous input for daily network  
2 operations, inspection and maintenance planning. The article identified the following  
3 potential benefits:

- 4 • Early warning system, which can rapidly locate the source and spread of the  
5 contamination,
- 6 • By handling quality issues early, utilities can incur lower costs from labor and  
7 equipment needed to gather samples, as well as reducing the amount of chemicals  
8 used to ensure regulatory quality standards.
- 9 • Public health issues can be prevented because contamination can be detected  
10 before it reaches the population.
- 11 • Unexpected quality changes can also indicate useful information about pipeline  
12 conditions and the distribution process.

13 **Q: Have the Settling Parties agreed the Utility will assess its Smart Grid Metering**  
14 **System?**

15 A: Yes. Given some of the potential benefits discussed above, the OUCC and Petitioner  
16 have agreed that the Utility will assess its Smart Grid System and provide a report to the  
17 Commission, copying the OUCC, on its assessment of its Smart Grid System.

#### X. NON-REVENUE WATER

18 **Q: Has Petitioner agreed to perform a bottom-up water audit to further the goal of**  
19 **reducing Anderson's non-revenue water?**

20 A: Yes. In Section IV.D. of the Joint Settlement Agreement, Petitioner agreed to perform a  
21 bottom-up water audit. Petitioner also agreed to issue Requests for Statements of  
22 Qualifications (SOQ) with separate sealed cost proposals to conduct the study.

23 **Q: What is a water audit?**

24 A: The American Water Works Association (AWWA) Manual of Water Supply Practices:  
25 Water Audits and Loss Control Programs (M36 Manual), provides a definition of a water  
26 audit as follows:

27 A thorough examination of the accuracy of water utility data, records,  
28 accounts, policies, and practices regarding the volumes of water that are

1 moved from source to treatment to distribution and customer  
2 consumption: ultimately segregating volumes reaching customers from  
3 volumes of loss. Water audits are essential to assess the quantitative  
4 efficiency of water utilities and their water resources, operational and  
5 financial impacts. Water audits can be performed in top-down fashion  
6 (desktop assessment of records) or bottom-up fashion (detailed field  
7 measurements and investigations to confirm records). (p. 274.)

8 The M36 Manual also discusses the water auditing process:

9 The water auditing process is an effective tool available to utilities to  
10 quantify consumption and losses that occur in the distribution system and  
11 the management processes of the water utility. The auditing process is a  
12 revealing undertaking that provides great insight to the auditor on the type  
13 and amounts of loss occurring in the utility. Launching a water audit also  
14 often begins the culture change necessary to focus utility employees on  
15 water efficient practices. (p. 8.)

16 **Q: Why do water utilities have water losses?**

17 A: Every water utility has a certain percentage of water losses that include: (1) apparent  
18 losses (i.e. customer metering inaccuracies, systematic data handling errors, and  
19 unauthorized consumption), (2) real losses (i.e. water leakage on transmission and  
20 distribution mains, storage leaks and leakage on customer service lines) and (3) unbilled  
21 authorized consumption (i.e. water main flushing, fire fighting, etc.). Therefore, due to  
22 these apparent losses, real losses and unbilled authorized consumption, a significant  
23 portion of the water supplied to customers is never billed for and no revenues are  
24 received.

25 **Q: Is there a term for these types of water losses?**

26 A: Yes. These types of water losses are considered Non-Revenue Water (NRW).

27 According to the AWWA M36 Manual, Non-Revenue Water (NRW) is as follows:

28 Nonrevenue water is the portion of the water that a utility places into the  
29 distribution system that is not billed and, therefore, recovers no revenue  
30 for the utility. Nonrevenue water consists of the sum of Unbilled  
31 Authorized Consumption (metered and unmetered), Apparent Losses, and

1 Real Losses. (p. 28.)

2  
3 **Q: Has Anderson contracted with outside consulting firms in the past to conduct water**  
4 **leak detection services?**

5 A: Yes. In response to OUCC discovery, Petitioner stated that in 2008 and 2009 Anderson  
6 contracted with M.E. Simpson Co. Inc. who surveyed 1,724,400 lineal feet (330 miles) of  
7 water mains, all fire hydrants, all accessible mainline valves, and selected service lines in  
8 2008. M.E. Simpson detected 67 leaks in 2008 with an estimated leakage of 215,280  
9 gallons per day (GPD). Again in 2009, M.E. Simpson conducted an emergency leak  
10 survey of selected areas of the water distribution system suspected of having leaks, 76  
11 more leaks producing an estimated 528,480 GPD were detected.

12 **Q: How many leaks were repaired by Anderson employees since 2011 to date?**

13 A: Anderson stated in discovery that from 2011 to 2013 it repaired 303 water main breaks  
14 and 541 service line leaks.

15 **Q: Has Anderson's non-revenue water increased in recent years?**

16 A: Yes. Anderson's non-revenue water has increased both in volume and as a percentage of  
17 its total production. Total non-revenue water volumes rose dramatically in 2008. In  
18 1989, Anderson had a non-revenue water rate of 18.7% caused by a large number of  
19 water main breaks. Anderson's non-revenue water per year averaged nearly 423 million  
20 gallons (MG) over 2003-2007 but increased by 89% to nearly 800 MG/year over 2008-  
21 2013.

22 **Q: How does the Settlement address Anderson's non-revenue water problem?**

23 A: The OUCC and Petitioner agree that a bottom-up water audit, as described in the AWWA  
24 M36 Manual, should be performed by the Utility. It is critical that Anderson undertake a  
25 long term continuous Water Loss Control Plan to identify, reduce, and manage its water

1 losses. Such a program will include active leak detection and elimination and a  
2 systematic replacement of problem water mains and service lines. The OUCC  
3 encourages Petitioner to use the AWWA Water Loss Control Committee's Free Water  
4 Audit Software to give it a preliminary indication of where they stand. Thereafter, the  
5 Utility should use the more sophisticated activities discussed in the AWWA M36 Manual  
6 to complete the bottom-up water audit.

7 **Q: Are there resources in addition to the AWWA M36 Manual that may assist**  
8 **Petitioner in addressing non-revenue water?**

9 A: Yes. The following are quality reference documents that address non-revenue water:

- 10 • Water Audits and Water Loss Control for Public Water Systems (EPA 816-F-13-  
11 002)<sup>24</sup>
- 12 • Control And Mitigation Of Drinking Water Losses In Distribution Systems  
13 (USEPA)<sup>25</sup>

## **XI. FLUSHING AND PORTABLE GENERATOR**

14 **Q: Why does Petitioner need a flushing plan?**

15 A: Generally, water utilities in Indiana perform periodic routine flushing of their mains to  
16 improve water quality and flushing of their fire hydrants for safety reasons. It is typical  
17 in Indiana for well water to contain iron oxide, which discolors finished water. While  
18 treatment plants use filters to remove iron oxide, they don't eliminate it altogether. To  
19 maintain the quality of water, flushing can eliminate iron that settles in the mains.  
20 Petitioner should access its system to determine the appropriate time frame in which to  
21 flush its mains.

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<sup>24</sup> *Water Audits and Water Loss Control for Public Water Systems* (EPA 816-F-13-002) can accessed at the following web address: <http://water.epa.gov/type/drink/pws/smallsystems/upload/epa816f13002.pdf>.

<sup>25</sup> *Control And Mitigation Of Drinking Water Losses In Distribution Systems*  
[http://water.epa.gov/type/drink/pws/smallsystems/upload/Water\\_Loss\\_Control\\_508\\_FINALDEc.pdf](http://water.epa.gov/type/drink/pws/smallsystems/upload/Water_Loss_Control_508_FINALDEc.pdf).

1 **Q: Has Petitioner agreed to develop and implement a comprehensive flushing plan for**  
2 **its water system and its hydrants?**

3 A: Yes.

4 **Q: Are there reference materials that may assist Anderson in its efforts to establish a**  
5 **flushing plan?**

6 A: Yes. The following AWWA technical reference documents can provide the guidelines to  
7 follow in the preparation of a flushing plan:

- 8 • AWWA Research Foundation (AWWARF) Guidance Manual for Maintaining  
9 Distribution System Water Quality
- 10 • Flushing Maintains Distribution System Water Quality (OpFlow, p. 8-9, June  
11 2014)

12 **Q: What emergency power needs does the Utility have?**

13 A: For the most part, Anderson Municipal Water has adequate emergency power  
14 arrangements. Only the Ranney Well Field is unequipped for back-up power. Ranney  
15 Well No. 5 is significant to Anderson's operations possessing a production capacity of  
16 2,350 gallons per minute.

17 **Q: Has Petitioner agreed to procure or arrange for access to a portable generator to**  
18 **support the pump at Ranney Well No. 5?**

19 A: Yes.

### **XIII. RECOMMENDATIONS**

20 **Q: What is the OUCC's recommendation in this Cause?**

21 A: The OUCC recommends the Commission approve the Settlement in its entirety and find  
22 that it is in the public interest.

23 **Q: Does this conclude your testimony?**

24 A: Yes.

**AFFIRMATION**

I affirm, under the penalties for perjury, that the foregoing representations are true.

A handwritten signature in cursive script that reads "Scott A. Bell". The signature is written in black ink and is positioned above a horizontal line.

Scott A. Bell  
Indiana Office of Utility Consumer Counselor

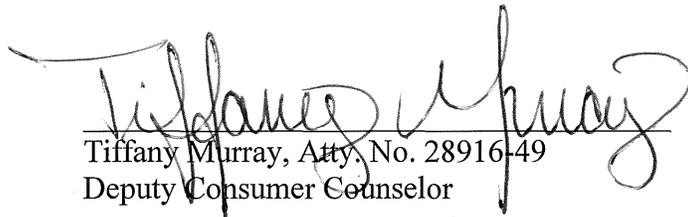
November 25, 2014  
Date

Cause No. 44510  
Anderson Municipal Water

**CERTIFICATE OF SERVICE**

This is to certify that a copy of the foregoing *OUCS Settlement Testimony of Scott A. Bell – Public's Exhibit No. 1* has been served upon the following counsel of record in the captioned proceeding by electronic service on November 25, 2014.

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