

Petitioner's Exhibit No. 1

ELKHART (INDIANA) MUNICIPAL WATER UTILITY

INDIANA UTILITY REGULATORY COMMISSION

IURC CAUSE NO. 46010

DIRECT TESTIMONY

OF

TORY IRWIN

SPONSORING ATTACHMENTS TI-1 THROUGH TI-21

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**CITY OF ELKHART, INDIANA
IURC CAUSE NO. 46010
DIRECT TESTIMONY OF TORY IRWIN**

BACKGROUND

Q. Please state your name.

A. Tory Irwin, P.E.

Q. What is your relationship with City of Elkhart, Indiana (the “Petitioner” and “City” or “Elkhart”)?

A. I am the City Engineer and the Director of Public Works.

Q. What is your educational and professional background?

A. I have a Bachelor’s Degree in Civil Engineering from Michigan State University, and a Master’s Degree in Public Affairs from Indiana University. I am a licensed Professional Engineer. Please see Attachment TI-1, my resume.

Q. What is the purpose of your testimony?

A. To provide insight and information to the Indiana Utility Regulatory Commission (“Commission” and/or “IURC”), the Indiana Office of Utility Consumer Counselor (“OUCC”), and any interested parties with regard to the necessity for a water rate increase. In my testimony I will discuss the history of the City’s Municipal Water Utility (the “Utility” or “Water Utility”), the current assets of the Water Utility, the Water Master Plan (“WMP”), the Capital Improvement Plan (“CIP”), the Asset Management Plan (“AMP”), and why the requested rate increase is necessary for the benefit of our customers.

HISTORY OF THE ELKHART WATER UTILITY.

Q. Please describe the Water Utility.

32 A. In 1884, after several years of effort by the early City officials to provide a public water
33 supply for both domestic water and fire protection, the Elkhart Water Company, a privately owned
34 utility, was organized. Elkhart Water Company remained in operation as a privately-owned utility
35 until 1925, when it was purchased by the City of Elkhart for the price of \$925,000. It has remained
36 a municipal utility for the last 99 years. As of December 31, 2023, the Water Utility served a total
37 of 19,100 customers: 15,186 are residential customers and 3,914 are non-residential customers.
38 The Water Utility provided 3.22 billion gallons of water to our customers in 2023.

39 **Assets of the Water Utility.**

40 The Utility currently has 28 production wells and 4 interceptor wells spread across three
41 wellfields. Those wells currently in operation were drilled between 1945 and 2015. The North
42 Main Wellfield is located at 921 North Main Street, and has been in operation since 1884. The
43 Northwest Wellfield is located at 27100 County Road 4, and has been in operation since circa
44 1950-1960. The South Wellfield is located in the 2700 block of Prairie Street and has been in
45 operation since 1963.

46 The Water Utility has five elevated water towers. The Benham Water Tower is located at
47 the corner of Benham Avenue and LaSalle Street, and has been in operation since 1940. The
48 Bower Water Tower is located at 1600 Bower Street and has been in operation since 1966. The
49 South Water Tower is located in the 2700 block of Prairie Street and has been in operation since
50 1966. The Riverview Water Tower is located at the corner of Riverview Avenue and Conant
51 Street, and has been in operation since 1966. The Northeast Water Tower is located at 52588
52 County Road 15, and has been in operation since 2010.

53 The Water Utility has three ground storage tanks. Each tank has a two million gallon
54 capacity. Two of the tanks were built in the 1950s and are located at the North Main Wellfield
55 and one tank was built in 1960 and is located at the Northwest Wellfield.

56 The Water Utility owns and operates three air strippers (supplied by the interceptor wells),
57 built in 1978, due to the location of a Superfund site at the North Main Wellfield location. The
58 Water Utility also owns four pump stations. The Water Utility shares 50/50 ownership and
59 maintenance with the Wastewater Utility for the Public Works and Utilities administration
60 building, as well as the maintenance, the operations, and the network buildings.

61 The Water Utility owns and maintains twenty-nine vehicles ranging in age from 2013 to
62 2020 and four heavy equipment machinery.

63 The Utility has 364 miles of water mains with the oldest mains still in use since the late
64 1800s. A graph illustrating the total miles of all materials installed by decade, and still in use, is
65 attached as Attachment TI-2. Besides maintaining the mains, the Utility maintains 2,728 hydrants,
66 3,845 system valves (excluding the hydrant valves) and 19,269 water service lines.

67 Despite continuous preventative maintenance, the aging assets of the Utility are in need of
68 increasingly expensive repairs or replacement.

69 **Employment at the Water Utility**

70 The Utility had forty-seven employees as of 2023. Twenty-seven of those employees are
71 members of the Teamsters Union. I have included the current Teamsters Contract as Attachment
72 TI-3. Seven of those employees are salary exempt employees with the balance of employees as
73 hourly non-exempt. In the last fifty years the Water Utility has added two wellfields, twenty-four
74 wells, three air strippers and one water tower to its operations, however, the number of staff has
75 only increased by fourteen employees. That illustrates the Utility's commitment to keeping costs
76 down and making the most efficient use of our labor resources. The concern for the Utility is with
77 the current minimal staffing level, the Utility may be unable to meet future additional needs such
78 as the EPA mandate regarding the Lead Service Line ("LSL") replacement or the unknown future
79 requirements regarding PFAS.

80 Utility employees are made up of members of the distribution team (they repair and
81 maintain the water mains, valves and hydrants); the operations team (they manage operations of
82 the drinking water treatment plant); the maintenance team (they maintain the wellfields and all
83 other assets of the Utility except vehicles); the water quality team (they sample and analyze the
84 City's drinking water quality as well as the health of the Elkhart River and St. Joseph River in
85 Elkhart); the customer service & support team (they manage the billing and customer service
86 aspects of the Utility), the engineering team (they manage all water projects, records and mapping)
87 and the administrative/management team. I have included the Wage Resolutions for the past six
88 years and including 2024 as Attachment TI-4. This Attachment illustrates the increased rate of
89 pay that was not anticipated in the current rates or the AMP. I have also attached our payroll
90 records for the past five years as Attachment TI-5.

91 Because the City has a Wastewater Utility as well as a Water Utility, many of the non-union
92 employees perform duties for both utilities. In those cases, the Water Utility and Wastewater
93 Utility evenly split the costs of the employees by assigning half to each utility.

94

95 **NEED FOR INCREASED RATE REQUEST**

96

97 **Q. Please identify Attachment TI-6, and state why this attachment is included with your**
98 **testimony.**

99 A. This is the Water Utility Distribution System Map. It shows the area that is serviced by
100 the Water Utility, both in and outside of the City limits.

101
102 **Q. Please identify Attachment TI-7 and state why this attachment is included with your**
103 **testimony.**

104 A. This is the map of the Water Main Breaks for calendar years 2006 - 2022. This map
105 illustrates the volume of repairs that were performed by the Water Utility in those years. All of the
106 main breaks were repaired by Utility employees, in order to keep costs down, however, given the
107 nature of this work and the age of some of the Utility's water mains, there is no way to accurately
108 predict how many breaks will happen in any year and whether staff will be able to keep doing the
109 repairs in-house.

110
111 **Q. Please identify Attachment TI-8 and state why this attachment is included with your**
112 **testimony.**

113 A. This is the City of Elkhart Water Master Plan, which was updated in 2022 This document
114 will be addressed throughout this testimony.

115
116 **Q. Please identify Attachment TI-9 and state why this attachment is included with your**
117 **testimony.**

118 A. On November 21, 2023, the Water Utility took Resolution 23-R-26 to the Board of Public
119 Works asking for a due pass recommendation (to the Common Council) for the proposed new
120 rates. The Board approved the resolution which is submitted as Attachment TI-9.

121
122 **Q. Please identify Attachment TI-10 and state why this attachment is included with your**
123 **testimony.**

124 A. This attachment is Ordinance No. 5963 presented and passed by the Elkhart Common
125 Council on December 4, 2023, subject to approval by the IURC. This enumerates the requested
126 rate increase that is the subject of this cause.

127
128 **Q. Please identify Attachment TI-11 and state why this attachment is included with your**
129 **testimony.**

130 A. This attachment is the PowerPoint that I presented to the Common Council with the
131 proposed Water Utility rate ordinance. It is included with my testimony for informational
132 purposes.

133
134 **Q. Let's discuss the Water Utility Master Plan, Attachment TI-8, does the Master Plan**
135 **include proposed Capital Improvement Projects by year from 2020 through 2025?**

136 A. Yes, that information can be found in Table 6-2, on pages 76 – 78.

137
138 **Q. Have some of the Capital Improvement Projects (“CIP) listed in the Master Plan, by**
139 **year, been completed? If so, which ones have been completed?**

140 A. Yes, some have been completed. By year:

141 2020: All completed.

142 2021: High Service Pump Building – NMS (new generator and transfer switch to replace forty-
143 year-old generator)

144 Inspection Project Structural – WTPs

145 Northwest Aerator Replacement (repaired not replaced) – NWF

146 South Chlorine Replacement – SWF

147 3% of System Lead Service Line Replacements (budgeted annually) – SL (this was only
148 partially complete due to lack of funds)

149 Water Main Extension Program (budgeted annually) - WM

150
151 2022: Riverview Tower Repaint – WST
152 3% of System Lead Service Line Replacements (budgeted annually) – SL (this was only
153 partially complete due to lack of funds)

154 Water Main Extension Program (budgeted annually) – WM (this was only partially
155 complete due to lack of funds)

156
157 2023: 3% of System Lead Service Line Replacements (budgeted annually) – SL (this was only
158 partially complete due to lack of funds)

159 Water Main Extension Program (budgeted annually) – WM

160
161 2024: None to date.

162
163 2025: Fieldhouse Loop 6th St. to 7th St. – WM (Completed in 2023)

164
165
166 **Q. Was a rate study prepared in preparation of this rate proceeding?**

167 A. Yes, the rate study in this case was prepared when the Water Utility retained an accounting
168 firm, Baker Tilly or BTMA, to review the Utility's historical financial records including the
169 Utility's base rate revenue, all of the Utility's cash operating expenses and our proposed multi-

170 year capital improvement plan. Baker Tilly then analyzed the current rates and charges and assisted
171 us with determining if the current rates and charges would generate enough revenue to cover all of
172 the future cash operating expenses as well as provide enough revenue for capital improvements
173 (both rate funded and bond/debt funded), fund a proposed debt service reserve and provide an
174 allowance for Payment in Lieu of Taxes (PILOT) (the "Proposed Revenue Requirements"). The
175 testimony of Andre Riley, a principal with Baker Tilly, is included as part of Elkhart's submission
176 of the case-in-chief.

177
178 **Q. Are the costs of all the proposed projects included in the CIP included in the rate**
179 **study/case-in-chief?**

180 A. No. Our rate request will not fund all of our proposed projects.

181
182 **Q. Please describe which proposed projects are not included in this rate proceeding and**
183 **please give an explanation as to why they were not included.**

184 A. None of the projects that provide redundancy within the system (with a projected total of
185 \$12,870,000.00 based on the Water Master Plan Update of November 2022) are included in the
186 rate study. We excluded these projects due to the Utility's more urgent needs, we would delay
187 those projects. If certain planned projects included in this rate proceeding are denied the Water
188 Utility will recommend to fund other projects within the CIP it had not anticipated funding at this
189 time and propose to keep the rate increase this same.

190
191 **Q. Do you have a list of the CIP projects that were included in the rate study?**

192 A. Yes, see Attachment TI-12. This is included as a spreadsheet showing three lists: 1) the list
193 of Water Utility projects that are scheduled to be completed during a Combined Sewer Overflow
194 (CSO) Long Term Control Plan (LTCP) project; 2) the list of scheduled water main replacements;
195 and 3) the asset management facilities list of scheduled maintenance projects.

196
197 **Q. First let's address the Utility projects being scheduled during the completion of a CSO**
198 **LTCP project. Please describe the CSO LTCP.**

199 A. When the original sewer infrastructure was built in Elkhart (City of Elkhart's Sewage
200 Works system), many of the sanitary lines were combined with storm sewer lines, hence the term
201 "combined sewer." Consequently, whenever there was a significant rain, or melting snow, the
202 wastewater treatment plant did not have the capacity to treat all of the wastewater/stormwater, so

203 the sewers overflowed into the St. Joseph River. That is called a combined sewer overflow, or
204 CSO. Elkhart began CSO remediation in the 1990s, before we were required to do so. In the early
205 part of the twenty-first century, the United States Environmental Protection Agency (the "USEPA"
206 or "EPA") put cities that had combined sewers, like Elkhart, on notice that the EPA would be filing
207 suit in order to enforce the Clean Water Act (CWA). Cities were required to develop a plan to
208 eliminate or greatly reduce the frequency and amount of CSOs. After years-long negotiations,
209 Elkhart reached an agreement with the Department of Justice and developed its LTCP which the
210 EPA approved. The EPA filed its Complaint against Elkhart on the same date, September 6, 2011,
211 that they also filed a proposed Consent Decree with a LTCP. The Court approved the Consent
212 Decree and LTCP on November 30, 2011, and Elkhart has continued to work off of the list of
213 projects contained therein. The LTCP was amended in 2021. I have attached the Complaint,
214 Consent Decree, and CSO LTCP and Amended Consent Decree as Attachment TI-13.

215
216 **Q. Now that you have explained the CSO LTCP, could you explain why the Water Utility**
217 **would schedule its projects to coincide with the LTCP projects, whenever possible?**

218 A. Yes. When Elkhart is completing projects from the CSO LTCP, they are major
219 construction projects and typically require closing major roadways for months, excavating in the
220 right-of-way, then restoring the roadway and appurtenances. If the Water Utility has an
221 outstanding project within the same area, it provides savings in convenience to the rate payers to
222 replace mains or lead service lines during the LTCP project construction because the roadway only
223 has to be closed once, excavated once, and restored once. It provides savings in the cost of Water
224 Utility projects because the cost of excavation and restoration are typically born by the funding for
225 the LTCP. I have enclosed photos of a current CSO LTCP project that includes a Water Utility
226 component, as Attachment TI-14.

227
228 **Q. How did you calculate the projected costs of the Water Utility projects that are being**
229 **coordinated with the CSO LTCP projects?**

230 A. Those are approximate costs of water line replacement only. Those cost estimates do not
231 include the costs of replacing the roadway or any other infrastructure which would normally be
232 incurred if the CSO LTCP was not covering those costs. Hence, the savings from timing those
233 projects together. As an example, I have provided Attachment TI-15 which include the pay apps
234 for the Fieldhouse project. The Water Utility costs are highlighted and accounted for only 31.4 %
235 of the total cost of the project.

236

237 **Q. Now that you have explained why you coordinate some Water Utility projects with**
238 **CSO LTCP projects, of the remaining projects, how do you determine which water mains**
239 **should be replaced and how do you prioritize those replacements?**

240 A. We prioritize according to our Asset Management Plan (AMP) as mandated by the State
241 of Indiana. The AMP is attached as Attachment TI-16.

242

243 **Q. How did you calculate the projected costs of those Water Utility main extensions?**

244 A. Some approximate costs were included in the AMP, and others were based upon historical
245 data by using the cost per foot of water mains including roadway and other restoration. We have
246 since realized the costly miscalculation of using the AMP. Unfortunately, the AMP relied upon
247 an inflation rate of 1.8% annual inflation which has proven to be grossly underestimated. As
248 Attachment TI-17, I have included the Material Bid Tabs from 2018 (when the AMP was drafted)
249 through 2024. This illustrates the rate of inflation over the last six years, which far exceeds the
250 1.8% assumption. For example:

Bid Item	2018 Bid Price	2023 Bid Price	% Increase
Hydrant Dbl Pumper Stortz, M.J. w/Acc.	\$1,985.00	\$3,292.00	66%
Duo Valve, MJ AWWA Approve. w/ Acc.	\$815.00	\$1,623.04	99%
Copper, Type K Soft 60ft Rolls (1") (per LFT)	\$4.25	\$7.82	84%
Curb Box	\$70.00	\$131.95	89%
Water Meters Neptune (8")	\$4,464.62	\$10,702.31	140%

251

252 **Q. The third spreadsheet contained in Attachment TI-12 is the list of asset facilities that**
253 **are in need of maintenance. Please explain how those were prioritized.**

254 A. We again used the AMP as our source for determining the maintenance schedule. Water
255 Towers must be repainted every fifteen years. The year 2023 was designated as the year to repaint
256 the Benham Water Tower. The contractor was engaged and began the project. Unfortunately, the
257 project did not move forward as expected and the painting is still not complete. The Utility is
258 working with the contractor to finish the job in fall 2024 at which time liquidated damages will be
259 determined and payment will be made. At the end of 2023, there remained a balance in the Tank
260 Maintenance Fund of over \$900,000 because the repaint was not complete.

261

262 **Q. How did you calculate the projected costs of the Water Utility asset facilities**
263 **maintenance projects?**

264 A. We relied on the consultant, Arcadis, who provided the projected costs as part of the AMP.

265

266 **Q. Since the rate study was completed, are there any changes you would like to address**
267 **with regard to the CIPs?**

268 A. Yes. The costs of the projects were dramatically underestimated given the fact that
269 construction costs have skyrocketed. As stated above, the AMP assumes an inflationary rate of
270 1.8% annual interest. That inflation rate assumption was pre-Covid. Additionally, as the rate
271 study was moving forward, it was unknown if the immediate post-Covid inflationary rate would
272 remain volatile. The increased costs in materials alone are addressed above and in Attachment TI-
273 16. Those bid summaries only reflect the increased cost of materials, not the increased cost in
274 labor.

275 Second, employee wages and benefits have increased by a margin not previously
276 anticipated. With the cost of living making a major leap of over 8% in 2023, wages must keep up
277 with inflation if the Utility is to be successful in retaining employees. To illustrate the wage increase,
278 I reference Attachment TI-4, the Wage Resolutions 2018-2024. Those wage resolutions only
279 address the increase in the Utility's employees. The increase in outside labor for work performed
280 by contractors, is shown in Attachment TI-18, the Davis-Bacon certified payrolls from a 2010
281 project and a 2023 project.

282 Third, EPA has issued the PFAS National Primary Drinking Water Regulation. According
283 to the EPA fact sheet:

284 Water systems must take action to reduce the levels of these PFAS in drinking water
285 if the level of PFAS in their drinking water exceeds regulatory standards. Regulated
286 public water systems have three years to complete their initial monitoring for these
287 chemicals. Systems must include their results in their Annual Water Quality reports
288 to customers. Systems that detect PFAS above the new standards will have five
289 years to implement solutions that reduce PFAS in their drinking water. Water
290 systems must also notify the public if levels of regulated PFAS exceed these new
291 standards.

292 This new rule will require additional testing as well as creating a plan to reduce or eliminate PFAS
293 in the drinking water we supply to our customers. This regulation will add an undetermined cost
294 to the operation of the Water Utility. The EPA fact sheet is attached as Attachment TI-19.

295 Fourth, when the City began the lead service line removal (LSLR) program five years ago,
296 we believed that we had to complete the replacement of 3% of all lead service lines annually. The
297 EPA has now proposed certain changes that will speed up the replacement timeline. Attachment
298 TI-20 contains a comparison of the current LSLR rule with the proposed rule.

299

300 **Q. What are the Water Utility's plans to adjust cost and expense estimates given the**
301 **changes discussed in the answer above?**

302 A. This has put the Water Utility in the position of potentially having to cut certain projects
303 from the CIP. If, however, bids come in lower than the anticipated costs, the Utility will be able
304 to take on additional projects such as ones that create redundancy as mentioned earlier.

305
306 **Q. Are all of the CIP projects contained in the rate study reasonably necessary for the**
307 **provision of adequate utility service by Petitioner?**

308 A. Yes, and to meet unfunded EPA mandates and comply with Indiana State Law for asset
309 management.

310
311 **Q. Are there any CIP projects not contained in the rate study but contained in the**
312 **Elkhart Water Master Plan that you believe are reasonably necessary, and why.**

313 A. Yes, the projects that provide redundancy. To illustrate the importance of redundancy, I
314 have included Attachment TI-21, the color-coded map of water mains. The red lines indicate the
315 lack of redundancy. To achieve redundancy, the water service must be connected to a main that
316 is part of a continuous loop. This loop provides continuous flow of water so that when there is no,
317 or little, demand, the water does not just sit in the line. When water just sits in the line, the water
318 customers may complain about undesirable order or taste. But redundancy is even more important
319 when providing access to clean tap water. When a main breaks or is in need of service or
320 replacement, the lack of redundancy means that the customers farther down the line from the break
321 or replacement will not have water service while the repairs are being made, and they may be
322 subject to a boil order. One area that lacks redundancy serves a major elementary school.

323
324 **Q. Are there any other revenue requirements of the Water Utility that should be**
325 **considered by the Commission?**

326 A. The PILOT program has been included in prior rate cases as a revenue requirement. In
327 2023, however, the Water Utility was not able to pay the City of Elkhart the budgeted amount. It
328 simply cannot afford to do so without forgoing other operational costs. This is further referenced
329 in Mr. Riley's testimony.

330
331 **Q. Does this conclude your prepared direct testimony?**

332 A. Yes.

333

334

VERIFICATION

335 I, Tory Irwin, P.E., affirm under penalties of perjury that the foregoing representations are
336 true and correct to the best of my knowledge, information, and belief.

337

338


339

340

341

342

343



Tory Irwin, P.E.
Director of Public Works & Utilities
City of Elkhart, Indiana