

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**PETITION OF THE CITY OF SOUTH BEND, INDIANA)
FOR AUTHORITY TO ESTABLISH AND) CAUSE NO. 44892
IMPLEMENT A SYSTEM DEVELOPMENT CHARGE)
FOR WATER UTILITY SERVICE)**

TESTIMONY OF

CHARLES E. PATRICK – PUBLIC’S EXHIBIT NO. 1

ON BEHALF OF THE

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

MARCH 15, 2017

Respectfully submitted,



Daniel M. Le Vay, Atty. No. 22184-49
Deputy Consumer Counselor

TESTIMONY OF OUCC WITNESS CHARLES E. PATRICK
CAUSE NO. 44892
CITY OF SOUTH BEND

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

2 A: My name is Charles E. Patrick, and my business address is 115 West Washington
3 Street, Suite 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
6 a Utility Analyst for the Water/Wastewater Division. My qualifications are set
7 forth in APPENDIX A to this testimony.

8 **Q: What is the purpose of your testimony?**

9 A: Petitioner requested the Commission approve its proposed non-recurring system
10 development charge (“SDC”), which it would collect from new water customers
11 both inside and outside its corporate limits. Petitioner’s consultant calculated a
12 system development charge per EDU of \$465, which was then rounded to \$500.
13 Based on my review of Petitioner’s methodology and calculations, I recommend
14 the Commission approve the system development charge in the amount of \$465 per
15 equivalent dwelling unit (“EDU”) or equivalent residential unit (“ERU”).

16 **Q: What did you review to prepare your testimony?**

17 A: I reviewed Petitioner's testimony and attachments for the calculation of its proposed
18 SDC. I reviewed Ordinance No. 10461-16 of the City of South Bend, which was
19 adopted on October 24, 2016. I reviewed Petitioner’s 2015, 2014 and 2013 IURC
20 Annual Reports. I reviewed the American Water Works Association, *Principles of*
21 *Water Rates, Fees, and Charges, Manual of Water Supply Practices*, M1, Sixth

1 Edition, Chapter VI.2 on System Development Charges. I prepared discovery
2 questions and reviewed the responses we received.

3 **Q: Does your testimony include any schedules or attachments?**

4 A: Yes. I attached South Bend's response to the OUCC's third set of data requests,
5 which I have labeled Attachment CEP-1.

6 **Q: What is a System Development Charge?**

7 A: According to the AWWA's M1 Manual, a System Development Charge ("SDC")
8 "is a one-time charge paid by a new water system customer for system capacity" or
9 "existing customers requiring increased system capacity."¹ The M1 Manual
10 explains that generally SDCs are "based on the costs for major backbone
11 infrastructure components that are necessary to provide service to all customers
12 including source of supply facilities, raw water transmission, treatment facilities,
13 pumping facilities, storage tanks, and major treated-water transmission mains." Id.
14 The M1 Manual further states that "the receipts from this charge are used to finance
15 the development of capacity-related water facilities and are an important
16 funding/financing source for growth-related or capacity-related water facilities." Id.
17 However, the M1 Manual explains that system development charges are a
18 mechanism for recovering costs of plant that has already been constructed from the
19 customers served by the plant as they connect:

20 Utilities make investments in capacity-related facilities that will
21 provide service to new development in advance of when the new
22 development occurs. Typically, the capacity related facilities are
23 constructed in fairly large increments, and the new customers that
24 this capacity is intended to serve will typically connect to the system

¹ *Principles of Water Rates, Fees, and Charges*, AWWA Manual M1, Sixth Edition, American Water Works Association, 2012, p. 261.

1 over many years. As a result of the size of the capacity expansion
2 and the timing of when customers connect to the system, the timing
3 of receipts generated from the SDC's is rarely synchronized with the
4 construction of the capacity related facility. Therefore, SDCs
5 provide an equitable method for recovering the costs of system
6 capacity additions from those who will use the increased capacity,
7 although in most cases, some portion of the capacity-related costs
8 must still be recovered from user rates and charges assessed to all
9 customers due to the aforementioned timing issues.

10 AWWA Manual M1, p. 261.

11 **Q: Are system development charges known by any other name?**

12 A: Yes. Sometimes utilities or other state's regulators use the terms "impact fees,"
13 "development impact fees," "system capacity charges," "capacity fees," "capital
14 facility fees," "general facility charges," "expansion charges," "plan investment
15 fees," "system buy-in-charges," "capital charges," "capital recovery fees," and
16 "dedicated capacity charges." AWWA Manual M1, p. 262.

17 **Q: Are there different way to calculate a System Development Charge?**

18 A: Yes. There are different methods that may be used to calculate cost-based system
19 development charges. As noted in the M1 Manual, three common methods for
20 calculating the SDCs are the buy-in method, the incremental cost method, and the
21 combined approach method:

- 22 • The *buy-in method* is based on the value of the existing system's
23 capacity. This method is typically used when the existing
24 system has sufficient capacity to serve new development now
25 and into the future.
- 26 • The *incremental cost method* is based on the value or cost to
27 expand the existing system's capacity. This method is typically
28 used when the existing system has limited or no capacity to serve

1 new development and new or incremental facilities are needed
2 to serve new development now and into the future.

- 3 • The *combined approach* is based on a blended value of both the
4 existing and expanded system's capacity. This method is
5 typically used where some capacity is available in parts of the
6 existing system (e.g., source of supply), but new or incremental
7 capacity will need to be built in other parts (e.g., treatment plant)
8 to serve new development at some point in the future.²

9 **Q: What method did South Bend use to calculate its SDC?**

10 A: South Bend used the equity buy-in method, which is described in the sixth edition
11 of the AWWA M1 Manual at pages 267 – 270.

12 **Q: Why did South Bend choose the equity buy-in method?**

13 A: On page 5 of Petitioner's Exhibit No. 1, Petitioner's witness Eric Walsh indicated
14 he desired an approach to meet South Bend's goal of securing a level of equity from
15 new customers representing what existing customer have provided. Petitioner's
16 witness, Mr. Walsh did so by quoting the M-1 Manual:

17 The buy-in method is typically used where there is sufficient
18 capacity in the existing system such that it is capable of meeting both
19 near-term and long-term capacity needs. Under the buy-in
20 methodology, new development 'buys' a proportionate share of
21 capacity at cost (value) of the existing facilities. . . . The buy-in
22 method is based on the principle of achieving capital equity between
23 existing and new customers. This approach attempts to assess new
24 customers an SDC to approximate the equity or debt-free investment
25 position of current customers. The financial goal is to achieve a
26 level of equity from new customers by collecting an SDC
27 representative of the average equity attributable to existing
28 customers.

29 Petitioner's Exhibit No. 1, p. 5.

² *Id.*, pp. 265-266.

Further, Petitioner explained it was not attempting to focus only on capacity expansion but also the replacement of aging infrastructure:

1 While the Utility does have plans for capital improvements in future
2 Years, the majority of these scheduled improvements are related to
3 the replacement of aging infrastructure and are not capacity
4 expansion related. For this reason, I believe the Equity (Buy-in)
5 Method to be appropriate.

6 Petitioner's Exhibit No. 1, pp. 5-6.

7 **Q: What SDC charge does Petitioner propose?**

8 A: Petitioner proposes a system development charge of \$500 per equivalent residential
9 unit (ERU) or equivalent dwelling unit (EDU).

10 **Q: How did Petitioner calculate its system development charge?**

11 A: Petitioner engaged H. J. Umbaugh & Associates, Certified Public Accountants,
12 LLP ("Umbaugh") to advise Petitioner on the establishment of a SDC. On page 6
13 of Petitioner's Exhibit No. 1, Petitioner described the process Umbaugh used to
14 calculate the SDC. First, Umbaugh calculated (62,399) equivalent water meters
15 ("EWM") based on Petitioner's December 31, 2015 water meter count and AWWA
16 recognized equivalency factors based on water meter size (See page 4 of
17 Attachment EJW-1). Second, Umbaugh calculated (\$59,530,639) net utility plant
18 in service ("NUPIS") beginning with utility plant in service ("UPIS") at December
19 31, 2015 of \$88,472,546 and subtracting accumulated depreciation of \$28,941,907.
20 Third, Umbaugh calculated (\$29,018,353) total net equity investment ("TNEI") by
21 subtracting contributions in aid of construction ("CIAC") of \$11,845,853 and
22 outstanding bond and note principal balances ("OBNPB") of \$18,666,433 from the
23 \$59,530,639 NUPIS on December 31, 2015 (See page 5 of Attachment EJW-1).

1 Fourth, Umbaugh calculated an SDC of \$465 per equivalent residential unit
2 (“ERU”) by dividing the \$29,018,353 TNEI by the 62,399 EWM (See page 6 of
3 Attachment EJW-1). As an additional step, Umbaugh rounded the SDC per ERU
4 of \$465 to \$500, which amount Petitioner seeks as its SDC.

5 **Q: Do you accept Petitioner’s calculation of the system development charge?**

6 A: Yes. Petitioner’s calculation of a \$465 SDC conforms with the method outlined in
7 the AWWA M1 Manual. However, I propose the SDC be authorized based on the
8 cost derived from that methodology and not rounded to \$500.

9 **Q: Did Petitioner offer an additional calculation for larger non-single family**
10 **connections?**

11 A: Yes. Umbaugh provided an illustrative calculation for a SDC for non-single family
12 connections with greater than 20 ERU (See page 6 of Attachment EJW-1). First,
13 Umbaugh calculated a Base Line Equivalent Residential Connection Factor
14 (“LERCF”) of 65 by dividing the Average Daily Flow for the proposed Connection
15 in Gallons Per Day (“GPD”) by the Residential Average Daily Flow in GPD.
16 Second, Umbaugh calculated the Peaking Adjustment Factor (“PAF”) of 50% by
17 dividing the Daily Peaking Factor for a New Connection of 2 by the Daily Peaking
18 Factor for a single family residential connection of 4. Third, Umbaugh calculated
19 the Adjusted Equivalency Factor (“AEF”) of 32.50 by dividing the BLERCF of 65
20 by the PAF of 50%. Finally, Umbaugh calculated the SDC in its example by
21 multiplying the 32.50 BLERCF by its proposed \$500 ERU for a single residence.

1 **Q: Did Petitioner provide any additional examples of SDC calculations for**
2 **various types of connections?**

3 A: Yes. In response to OUCC DR 3.4, Petitioner provide sample calculations for an
4 apartment building with 10 units and a church with a full kitchen and 496 sanctuary
5 seats. (See Attachment CEP – 1.)

6 **Q: Do you accept Petitioner's calculation of the SDC for the larger non-single**
7 **family connections?**

8 A: Yes. Except for the step of rounding up to \$500, I also accept the method Petitioner
9 used to calculate the SDC that would be charged larger customers. As such, I
10 propose the Commission approve South Bend's system development charge in the
11 amount of \$465 per ERU as well as its proposed methodology for applying that
12 charge to non-residential customers.

13 **Q: How should the SDC be recorded?**

14 A: South Bend should record each SDC collected as a contribution in aid of
15 construction ("CIAC").

16 **Q: Please state your recommendations.**

17 A: I recommend the Commission authorize South Bend to impose a system
18 development charge of \$465 per residential household.

19 I recommend the Commission authorize South Bend to impose a system
20 development charge for multi-family units of \$465 per unit.

21 I recommend the Commission authorize South Bend to impose its system
22 development charge for all other customers using the methodology set forth in
23 Ordinance 10461-16. This methodology should be applied to a charge based on a
24 system development charge of \$465 per ERU.

25 I recommend the Commission instruct South Bend to record each system
26 development charge as a contributions in aid of construction ("CIAC").

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

28 A: Yes.

APPENDIX A

1 **Q: Have you previously testified before the Indiana Utility Regulatory**
2 **Commission?**

3 A: Yes.

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

5 A: I graduated from Indiana Central College in Indianapolis, Indiana in 1972, with a
6 Bachelor of Science degree, majoring in accounting, economics, and business
7 administration. I attended Indiana Central College, Indianapolis, Indiana from
8 September 1973 through May 1977, where I pursued a Master's of Science degree
9 in economics. I attended Kennesaw State College, Kennesaw, Georgia from 1985
10 through 1987, where I pursued a Master's of Business Administration degree with
11 an emphasis in accounting.

12 I served as chief executive officer for a group of dermatologists. I worked
13 in a variety of industries as a controller. These include medical, forms
14 manufacturing, retail and wholesale distribution, and information systems
15 recruiting and consulting.

16 I have also worked in a variety of accounting positions including banking,
17 Sarbanes-Oxley auditing and documentation, corporate tax and water, sewer,
18 propane gas, and cable television utilities. I became Financial Officer in 1980 for
19 a group of utilities including Florida Cities Water Company, Avatar Utilities, Inc.,
20 Poinciana Utilities, Inc., Avatar Propane Gas Company and Avatar Cable
21 Television, Inc. These regulated utilities included water, wastewater and cable
22 television.

1 I attended the National Association of Regulatory Utility Commissioners
2 ("NARUC") Rate School in Ft. Lauderdale, Florida in 1982 and in San Diego,
3 California in 2008. I attended the Advanced Regulatory Studies Program at
4 Michigan State University in 2012. I attended several American Water Works
5 Association ("AWWA") and Indiana Rural Water Association ("IRWA")
6 conferences. I attended the Alliance of Indiana Rural Water Conference
7 ("AIRWC") in 2013, the National Association of Water Conference ("NAWC") in
8 2013, 2015 and 2016 and the National Association of State Utility Advocates
9 ("NASUCA") Water Committee Forum in 2013 and 2016. I attended the Financial
10 Forum of the Society of Utility and Regulatory Financial Analysts ("SURFA") in
11 2014.

OUCC DR 3.1

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

Please state the meter size assumed in the Illustration of SDC for Non-Single Family Connections with Greater Than 20 ERUS on page 4 of Attachment EJW-1, p. 6 of 6.

Information Provided:

There was not a meter size assumed. The calculation is based on an assumed average daily flow and assumed minimum peaking factor of 2. Refer to Section 2, Subsection 5 of Ordinance No. 10461-16.

OUCC DR 3.2

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

Based on Petitioner's proposal, please state the applicable system development charge that would be imposed on a single family residence with each of the following meter sizes:

5/8"	Meter	-	\$
3/4"	Meter	-	\$
1"	Meter	-	\$
1 1/2"	Meter	-	\$
2"	Meter	-	\$
3"	Meter	-	\$
4"	Meter	-	\$

Information Provided:

The proposed system development charge for single family residence is not based on meter size. Instead it is a \$500 charge per ERU, where ERU is "defined as an equivalent residential unit which means a single family residence." See Section 2, Subsections 1 and 2 of Ordinance No. 10461-16. In addition, single family residences do not have meter sizes greater than 3/4".

OUCC DR 3.3

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

Please show the calculations for each dollar amount stated in response to the preceding question.

Information Provided:

Per Section 2, Subsection 2 of Ordinance No. 10461-16 “for every new connection to the South Bend Municipal Water Works, a system development charge of \$500 shall be collected per ERU...”. Per Section 2, Subsection 1 of Ordinance No. 10461-16 “ERU shall be defined as an equivalent residential unit which means a single family residence.”

OUCG DR 3.4

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

Based on Petitioner's proposal, please state the applicable system development charge that would be imposed on a non-residential customer with each of the meter sizes:

5/8"	Meter	-	\$
3/4"	Meter	-	\$
1"	Meter	-	\$
1 1/2"	Meter	-	\$
2"	Meter	-	\$
3"	Meter	-	\$
4"	Meter	-	\$
6"	Meter	-	\$
8"	Meter	-	\$
10"	Meter	-	\$

Information Provided:

The meter size of a non-residential customer is not applicable to the system development charge. Per Section 2, Subsection 4 of Ordinance No. 10461-16 "For multifamily structures each individual unit shall be one ERU." For example, an apartment building with 10 units would result in 10 ERUs, or a system development charge of \$5,000 (10 units x \$500 per ERU = \$5,000). Per Section 2, Subsection 4 of Ordinance No. 10461-16 "For all other types of structures, the ERU calculation shall be based upon the ratio of Average Daily Flow as computed pursuant to 327 IAC 3-6-11 in relationship to 310 gallons per day." For example, a church with a full kitchen and 496 sanctuary seats would result in 8 ERUs, or a system development charge of \$4,000 (496 sanctuary seats x 5 gallons per day per seat = 2,480 average daily flow / 310 gallons per day = 8 ERUs x \$500 per ERU = \$4,000).

For customers with greater than 20 ERUs as calculated per Section 2, Subsection 4 of Ordinance No. 40461-16, the ERU calculation will include the peaking factor methodology described in direct testimony and previous OUCG data request responses.

327 IAC 3-6-11 is attached for reference.

Attachment:

Attachment OUCG DR 3.4.pdf

WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT
REQUIREMENTS

Pressure-Rated Pipe, with mechanical joints rated to two hundred (200) pounds per square inch and backfilled with a stone, gravel, or coarse aggregate and covered in accordance with the following:

- (1) Below the channel pavement if the channel is paved.
- (2) Twelve (12) inches of cover shall be provided where the sewer is located in rock.
- (3) Thirty-six (36) inches of cover shall be provided in all other areas.

(d) Sanitary sewers, other than inverted siphons in conformance with section 17 of this rule, that cross streams or rivers shall be in accordance with the following:

- (1) Cross perpendicular to the stream flow.
- (2) Have no change in grade.

(e) Sanitary lift stations shall be capable of remaining fully operational and accessible during a twenty-five (25) year flood.

(f) Sanitary lift stations, structures, and electrical and mechanical equipment shall be protected from physical damage potentially caused by a one hundred (100) year flood. (*Water Pollution Control Division; 327 IAC 3-6-10; filed May 17, 1999, 12:11 p.m.: 22 IR 3090; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108; readopted filed Apr 11, 2005, 2:45 p.m.: 28 IR 2470; readopted filed Jun 15, 2011, 11:15 a.m.: 20110713-IR-327110193BFA*)

327 IAC 3-6-11 Design flow rate requirements for collection systems and water pollution treatment/control facilities

Authority: IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

Affected: IC 13-11-2; IC 13-15; IC 13-18

Sec. 11. (a) The flow rate requirements for collection systems and water pollution treatment/control facilities shall be in accordance with this section. The calculated average and peak flow rate values for a collection system and its associated water pollution treatment/control facilities shall be at least equal to the average and peak daily flow rate of the existing influent plus the flow from the proposed additional service connections calculated as follows:

- (1) The flow rate requirements for the average daily flow rate for residential service connections may be determined by using a general average daily flow rate value. The following method shall be used to calculate average and peak flow rate values:

$$\text{ADF} = (\text{General Avg}) \times \text{PRSC}$$

$$\text{PDF} = \text{ADF} \times \text{PF}$$

Where: ADF = Average daily flow rate expressed as gallons per residential service connection per day.

PDF = Peak daily flow rate expressed as gallons per residential service connection per day.

General Avg = General average daily flow rate value in accordance in the following:

200 gpd/unit for 1 bedroom apartment.

300 gpd/unit for 2 bedroom apartment.

310 gpd/unit for single-family homes.

PRSC = Proposed number of residential service connections.

PF = Peak daily factor of four (4).

- (2) The flow rate requirements for the average and peak flow rate for service connections are described by Table 11-1 in subsection (b). The following method may be used to calculate the average and peak flow rate requirements:

$$\text{ADF} = \text{FCF} \times \text{PSC}$$

$$\text{PDF} = \text{ADF} \times \text{PF}$$

Where: ADF = Average daily flow rate expressed as gallons per service connection per day.

PDF = Peak daily flow rate expressed as gallons per service connection per day.

FCF = Flow calculation factors as contained in Table 11-1 in subsection (b).

PSC = Proposed number of service connections.

PF = Peak daily factor of four (4).

- (3) If the average and peak daily flow cannot be determined or calculated using the methods described in subdivision (1) or (2), the determination of the average and peak daily flow shall be presented and approved pursuant to section 32 of this rule.

- (b) The following flow calculation factors shall be used in the calculations under subsection(a)(2):

WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT REQUIREMENTS

Table 11-1
Flow Calculation Factors (FCF)

Service Connection Description	FCF (gallons per day)
Agricultural labor camp	50 per occupant
Airport	3 per passenger plus 20 per employee
Assembly hall	3 per seat
Athletic field (baseball, soccer, football, etc.)	1 per participant and spectator with additions for concessions
Auction and flea market: with full kitchen	5 per customer
Auction and flea market: with warming kitchen	4 per customer
Auction and flea market: without kitchen	3 per customer
Automatic self-cleaning bathroom	20 per cycle (3 per day)
Banquet caterer	10 per person
Bar (without food)	10 per seat
Beauty salon: perm or color changes	35 per customer
Beauty salon: cut with wash	10 per customer
Beauty salon: cut without wash	5 per person
Bed and breakfast	150 per bedroom
Bowling alley (with bar and/or food)	125 per lane
Bowling alley (without food)	75 per lane
Bus station	3 per passenger
Campground (organizational) with flush toilets, showers, central kitchen	40 per camper
Campground (organizational) without flush toilets, privy use, central dining hall, no showers, handwashing	20 per camper
Campground (recreational) with individual sewer connection	100 per campsite
Campground (recreational) without individual sewer connection	50 per campsite
Church with full kitchen	5 per sanctuary seat
Church with warming kitchen	4 per sanctuary seat
Church without kitchen	3 per sanctuary seat
Condominium, multi-family dwelling: one bedroom	200 per unit
Condominium, multi-family dwelling: two bedroom	300 per unit
Condominium, multi-family dwelling: three bedroom	350 per unit
Condominium, one and two family dwelling	150 per bedroom
Conferences	10 per attendee
Correctional facilities	120 per inmate
Day care center	20 per person
Dentist	200 per chair plus 75 per employee
Doctor's office	75 per doctor, plus 75 per nurse, plus 20 per support staff
Factory with showers	35 per employee
Factory without showers	20 per employee

WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT REQUIREMENTS

Fire station: manned	75 per firefighter
Fire station: unmanned	35 per firefighter
Food service operations: cocktail lounge or tavern	35 per seat
Food service operations: restaurant (not open 24 hours)	35 per seat
Food service operations: restaurant (open 24 hours)	50 per seat
Food service operations: restaurant (not open 24 hours but located along an interstate)	50 per seat
Food service operations: restaurant (open 24 hours and located along an interstate)	70 per seat
Food service operations: tavern	35 per seat
Food service operations: curb service (drive-in)	50 per car space
Golf comfort station	3 per 50% of maximum number of golfers
Golf main clubhouse	5 per golfer with additions for food service and showers
Hospital, medical facility	200 per bed
Hotel	100 per room
Kennels and vet clinics (sum of all of the following services at a facility):	
1) a. cages;	5 per cage
b. inside runs;	10 per run
c. outside runs;	20 per run
d. grooming;	10 per animal
e. surgery; plus	50 per surgery room
2) staff	75 per veterinary doctor, plus 75 per veterinary assistant, plus 20 per support staff
Mental health facility	100 per patient
Mobile home park	200 per lot
Motel	100 per room
Nursing home	100 per bed
Office building without showers	20 per employee
Office building with showers	35 per employee
Outpatient surgical center	50 per patient
Picnic area	5 per visitor
Race tracks	5 per attendee, 20 per staff
School: elementary	15 per pupil
School: secondary	25 per pupil
School with dormitory	100 per bed
Service station: convenience store/service center	1,000 with additions for food preparation and seating
Service station with only two (2) restrooms	400 per restroom
Service station with only unisex restroom	600 per restroom
Service station: automatic self-cleaning bathroom	60 per day
Shopping center	0.1 per square foot of floor space, plus 20 per employee
Swimming pool bathhouse	10 per swimmer

WASTEWATER TREATMENT FACILITIES; ISSUANCE OF PERMITS; CONSTRUCTION AND PERMIT REQUIREMENTS

Theater: drive-in 5 per car space

Theater: inside building 5 per seat

(Water Pollution Control Division; 327 IAC 3-6-11; filed May 17, 1999, 12:11 p.m.: 22 IR 3090; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108; readopted filed Apr 11, 2005, 2:45 p.m.: 28 IR 2470; readopted filed Jun 15, 2011, 11:15 a.m.: 20110713-IR-327110193BFA)

327 IAC 3-6-12 Slope requirements for gravity sewers

Authority: IC 13-13-5; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2

Affected: IC 13-11-2; IC 13-15; IC 13-18

Sec. 12. (a) Gravity sewers, when flowing full, shall be designed and constructed with slopes that shall result in average flow velocities of not less than two (2) feet per second in accordance with the following:

Minimum Slopes	
Pipe Diameter (inches)	Minimum Slope (percent)
8	0.40
10	0.28
12	0.22
14	0.17
15	0.15
16	0.14
18	0.12
21	0.10
24	0.08
27	0.067
30	0.058
33	0.052
36	0.046
39	0.041
42	0.037

(b) Oversized gravity sewers shall not be approved to justify using decreased slopes.

(c) The slope of a gravity sewer, between any two (2) manholes, shall be uniform across the distance from the outlet invert elevation of the upstream pipe and the inlet invert elevation of the downstream pipe.

(d) Gravity sewers shall be provided with anchors to protect against damage from impact and erosion in accordance with the following:

(1) Slopes greater than twenty percent (20%) shall be provided with anchors spaced no more than thirty-six (36) feet on center.

(2) Slopes greater than thirty-five percent (35%) shall be provided with anchors spaced no more than twenty-four (24) feet on center.

(3) Slopes greater than fifty percent (50%) shall be provided with anchors spaced no more than sixteen (16) feet on center.

(Water Pollution Control Division; 327 IAC 3-6-12; filed May 17, 1999, 12:11 p.m.: 22 IR 3092; errata filed May 20, 1999, 6:36 p.m.: 22 IR 3108; readopted filed Apr 11, 2005, 2:45 p.m.: 28 IR 2470; readopted filed Jun 15, 2011, 11:15 a.m.: 20110713-IR-327110193BFA)

OUCC DR 3.5

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

Please show the calculations for each dollar amount given in response to the preceding question.

Information Provided:

Please refer to the methodology description and examples provided in response to Q 3.4.

OUCC DR 3.6

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

What is the total system capacity? Please briefly explain your answer.

Information Provided:

The water utility currently has a treatment capacity of 42 million gallons per day (“MGD”) based on well production and filtration plant capacities.

OUCC DR 3.7

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

Information Requested:

How much of the total system capacity is being used on an average day?

Information Provided:

Average flows – 14.64 MGD or 34.86% of capacity

OUCC DR 3.8

DATA INFORMATION REQUEST
City of South Bend, Indiana

Cause No. 44892

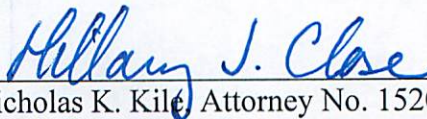
Information Requested:

How much of the total system capacity is being used on a peak day?

Information Provided:

Peak flows – 26.5 MGD or 63.10% of capacity

As to objections only,



Nicholas K. Kile, Attorney No. 15203-53

Hillary J. Close, Attorney No. 25104-49

Lauren M. Box, Attorney No. 32521-49

BARNES & THORNBURG LLP

11 South Meridian Street

Indianapolis, Indiana 46204

Kile Telephone: (317) 231-7768

Close Telephone: (317) 231-7785

Box Telephone: (317) 231- 7289

Facsimile: (317) 231-7433

nicholas.kile@btlaw.com

hillary.close@btlaw.com

lauren.box@btlaw.com

Attorneys for Petitioner
City of South Bend, Indiana

AFFIRMATION

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

A handwritten signature in black ink, appearing to read "Charles E. Patrick", is written over a horizontal line.

Charles E. Patrick

Indiana Office of Utility Consumer Counselor

March 15, 2017

Date


Cause No. 44892

South Bend Municipal Water

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *OUCC Testimony of Charles E. Patrick: Public's Exhibit No. 1* has been served upon the following counsel of record in the captioned proceeding by electronic service on March 15, 2017.

Nicholas K. Kile
Hillary J. Close
Lauren M. Box
Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
nicholas.kile@btlaw.com
hillary.close@btlaw.com
lauren.box@btlaw.com



Daniel M. Le Vay
Deputy Consumer Counselor

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

115 West Washington Street
Suite 1500 South
Indianapolis, IN 46204
infomgt@oucc.in.gov
317/232-2494 – Phone
317/232-5923 – Facsimile