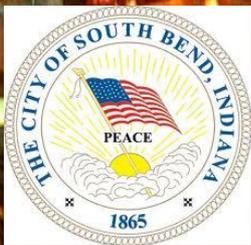
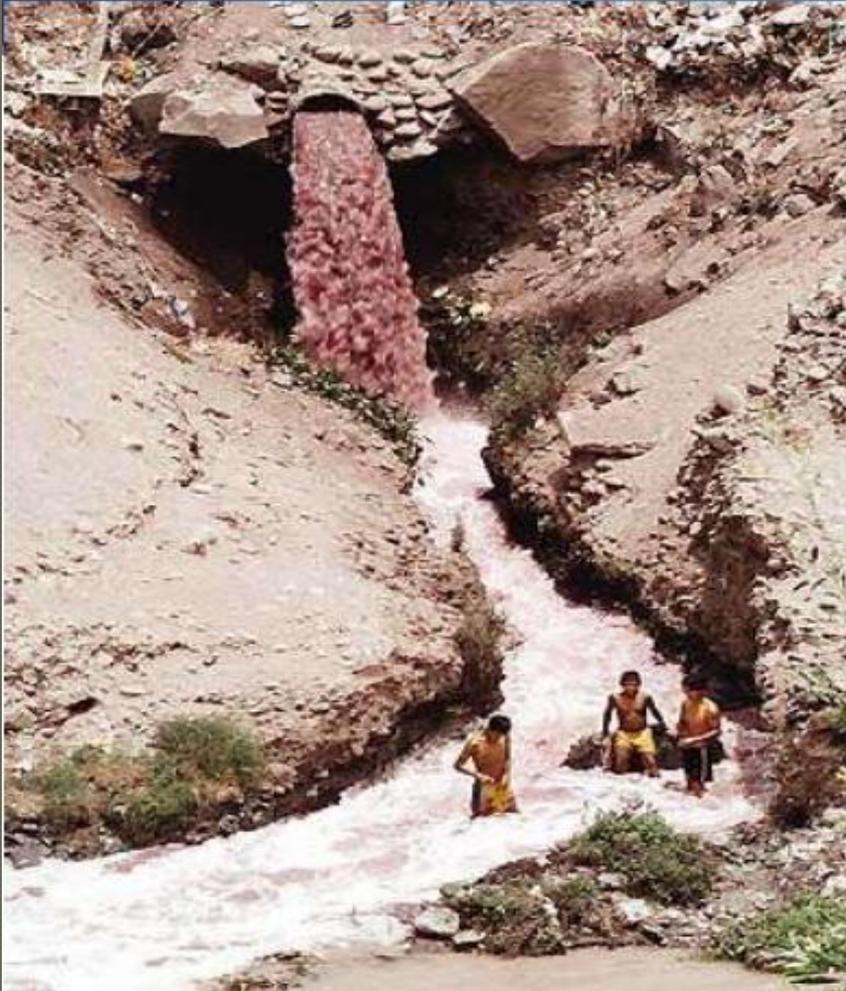


# South Bend Sewer Rate Increase Capital Improvements Plan



# Our Motivation



**60-70 Occurrences**

**36 Combined Sewer  
Overflows**

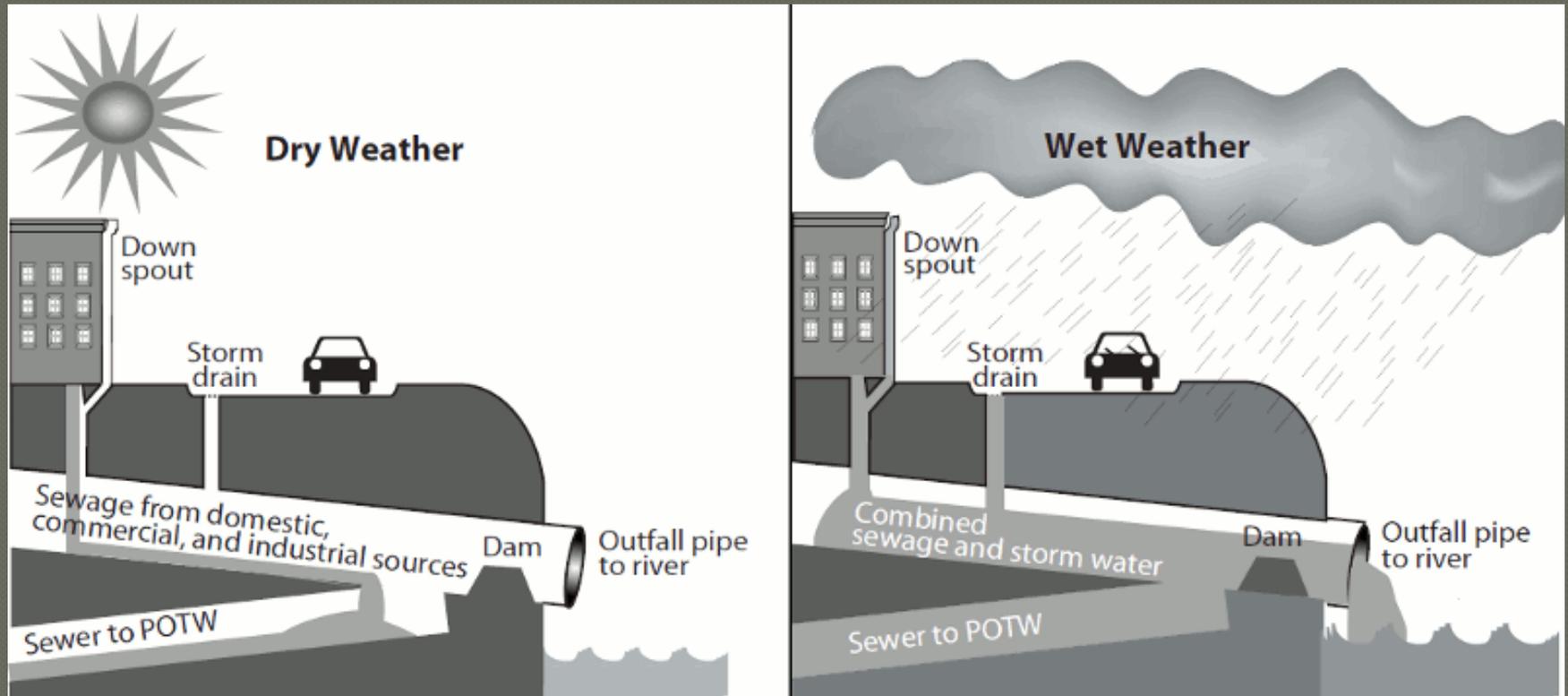
**1 Billion Gallons each  
Year**

# Our Motivation

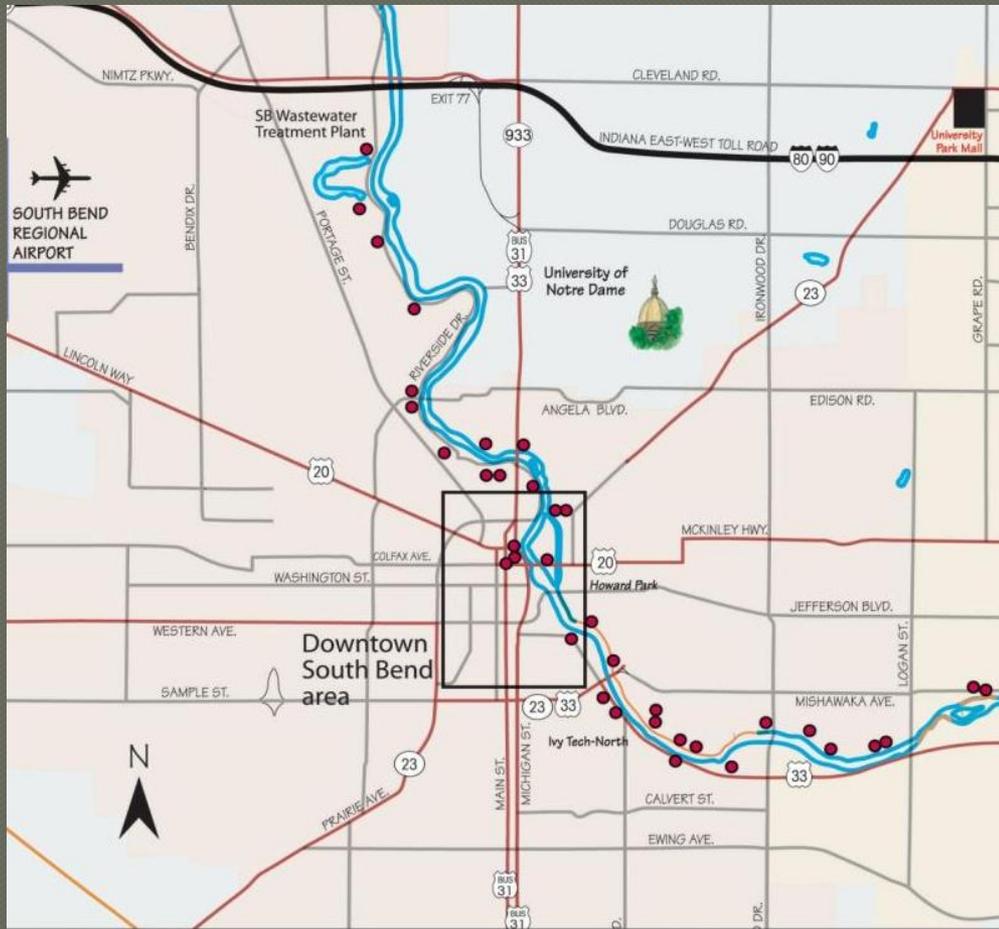


225 of 376  
Homes  
Surveyed

# Combined Sewer Overflows



# Combined Sewer Overflows



City Limits = 40 mi<sup>2</sup>

Combined Sewer  
Area = 20 mi<sup>2</sup>

# LTCP Development

SB Studies CSO System

SB Develops LTCP

SB, EPA, DOJ Negotiate Level of Control

1989 – EPA issues CSO Strategy

1994 – EPA issues CSO Control Policy

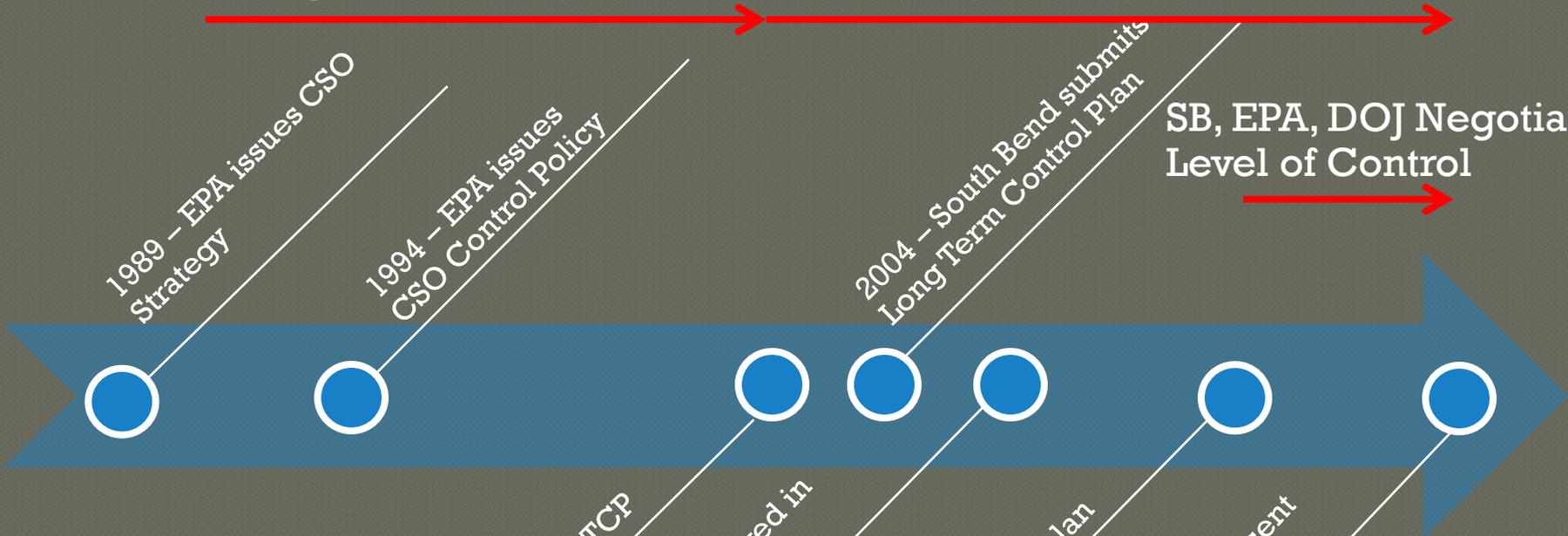
2002 – NPDES Permit requirement to submit LTCP

2005 – EPA/DOJ get involved in South Bend's LTCP

2008 – SB selects technical plan

2011 – SB signs Consent Decree

2004 – South Bend submits Long Term Control Plan



# Comparison to Other Plans – Cost (best comparison cost/acre)

Community	Estimated CSO Program Cost (Millions)	Population (2000 Census)	Combined Sewer Area (acres)	\$/acre
	ENR CCI = 8100			
Atlanta, GA	\$3,000	416,474	12,160	\$246,711
Nashville, TN	\$1,300	545,524	9,600	\$135,417
Washington DC	\$1,650	550,000	12,640	\$130,538
Indianapolis, IN	\$1,850	745,000	28,000	\$66,071
Lynchburg, VA	\$130	66,049	2,240	\$58,036
Richmond, VA	\$575	197,790	12,000	\$47,941
San Francisco, CA	\$1,500	730,000	31,360	\$47,832
Lafayette, IN	\$179	56,397	3,800	\$47,105
Omaha, NE	\$1,500	390,007	32,640	\$45,956
<b>South Bend, IN</b>	<b>\$509</b>	<b>108,000</b>	<b>13,000</b>	<b>\$39,154</b>
Fort Wayne, IN	\$340	205,727	9,600	\$35,375
Anderson, IN	\$161	59,734	4,700	\$34,255
Louisville, KY	\$800	269,063	23,680	\$33,784
Cleveland, OH	\$1,600	478,403	48,000	\$33,333
Cincinnati, OH	\$1,500	331,285	47,360	\$31,672
Wilmington, DE	\$130	75,000	4,300	\$30,233
Elkhart, IN	\$158	51,874	6,052	\$26,107

# South Bend Consent Decree

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- Signed by City of South Bend Dec. 2011
- Required to Develop a CSO LTCP
  - Eliminate dry weather overflows
  - Reduce # of wet weather overflows events to 4 or fewer
  - Disinfect overflows in order to meet Michigan water quality standards at State line

# Consent Decree Re-Openers

Option	Potential Change	Approval Authority	Constraints
1	Schedule (Extend up to 5 yrs)	EPA DOJ IDEM	<ul style="list-style-type: none"> <li>• After 5/2/2017</li> <li>• \$98,915,750 (2007 dollars)</li> <li>• Residential Indicator increase by 0.2% (current is 2.41%)</li> </ul>
2	Technical Plan (Size and/or Configuration)	EPA DOJ IDEM	<ul style="list-style-type: none"> <li>• Two chances before 12-31-2020</li> <li>• Implement green infrastructure or CSOnet and prove flows have been reduced</li> <li>• Max reduction of 40% in storage volume</li> </ul>
3	Other (i.e. Cost Reductions due to Model Recalibration, etc)	EPA/IDEM Judge Federal Court	<ul style="list-style-type: none"> <li>• Prove better plan for environment</li> <li>• Show good faith in implementing existing plan</li> </ul>

# Important Consent Decree Dates (Next 5 years)

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- Phase 1 Collection System Controls  
Completed by 31-Dec-2017
- Phase 2 Controls Upstream of ER  
Started by 1-Mar-2014
- Phase 2 Storage Tank at Leeper Park  
Started by 1-Mar-2017

# LTCP Next Steps

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## ● Phase I Sewer Separation Projects

- Eliminate sewage back-ups in basements
  - 225 out of 376 homes surveyed still having back-ups
- Reduce amount of flow in the system

## ● Phase I WWTP Facilities Plan Update

- 100 MGD Plant Facility
- WWTP Facility Upgrades and Updates

# LTCP Next Steps

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- ◉ Recalibrate Model & Update LTCP
- ◉ Phase II Projects
  - Upstream of East Race
  - Downstream of East Race
- Use Optimization & Technology to Reduce Capital requirements
  - Storage Tanks
  - Interceptor Sewers
  - Storage Conduits
  - Green Solutions – LID
  - Disinfection Facilities

# Remaining Capital Improvement Costs with Inflation

	Total Improvement Costs
2007 Dollars	\$432 M
3.04% Annual Inflation	\$667 M

} \$235 M

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
2007 Dollars	\$18,004	\$20,677	\$16,475	\$36,172	\$48,413	\$38,599	\$26,383	\$24,429	\$29,683	\$27,530	\$34,661	\$24,756	\$19,290	\$31,756	\$24,451	\$10,688	\$431,967
3.04% Inflation*	\$22,203	\$26,274	\$21,571	\$48,801	\$67,302	\$55,290	\$38,940	\$37,152	\$46,515	\$44,453	\$57,669	\$42,441	\$34,076	\$57,802	\$45,858	\$20,655	\$667,004
* 20-year Average ENR Midwest Region Construction Cost Index																	

# ACCRA Cost of Living Index

## 2<sup>nd</sup> Quarter 2013

State	Rank	Index	Grocery	Housing	Utilities	Transportation	Heath	Misc
Mississippi	1	88.7	95.3	89.4	76.3	90.8	90.1	95.5
South Bend/Mish*		91.2	95.7	79.0	78.2	99.0	97.5	99.8
Alabama	14	92.4	100.1	94.0	78.3	103.4	89.6	93.0
Idaho	3	89.4	94.0	84.3	78.7	92.3	97.4	100.9
Kentucky	7	90.1	94.5	85.6	79.0	100.6	92.3	97.9
Tennessee	4	89.7	97.6	88.9	79.4	90.2	90.6	92.0
Missouri	16	92.9	98.5	92.3	79.5	105.1	97.1	96.6
Nebraska	2	88.9	92.5	89.1	80.1	94.5	92.9	92.4
Georgia	12	92.0	96.9	91.8	80.9	99.7	98.6	95.1
Indiana	5	90.0	93.3	86.1	81.4	93.9	98.3	98.5
Oklahoma	6	90.0	94.3	88.8	81.4	90.8	95.7	96.4

# Monthly Combined Water & Sewer Rates

Population > 25,000

Jeffersonville	\$	96.60
New Albany	\$	90.59
Hobart	\$	81.24
Crown Point	\$	78.15
Terre Haute	\$	78.10
Westfield	\$	76.97
Richmond	\$	76.73
Noblesville	\$	75.80
Muncie	\$	74.09
Kokomo	\$	70.71
Gary	\$	69.89
West Lafayette	\$	68.81
Greenwood	\$	67.84
Merrillville	\$	62.82
Anderson	\$	62.15
Valparaiso	\$	61.11
Portage	\$	60.89
Goshen	\$	60.44

Bloomington	\$	60.41
Mishawaka	\$	59.39
Lawrence	\$	56.75
Indianapolis	\$	56.13
<b>South Bend</b>	<b>\$</b>	<b>55.38</b>
Michigan City	\$	54.69
Fishers	\$	53.79
Fort Wayne	\$	52.99
Evansville	\$	51.70
Columbus	\$	50.85
Marion	\$	50.62
Carmel	\$	44.69
Elkhart	\$	44.08
Plainfield	\$	42.67
Lafayette	\$	40.88
Schererville	\$	39.03
East Chicago	\$	19.73
Hammond	\$	16.38

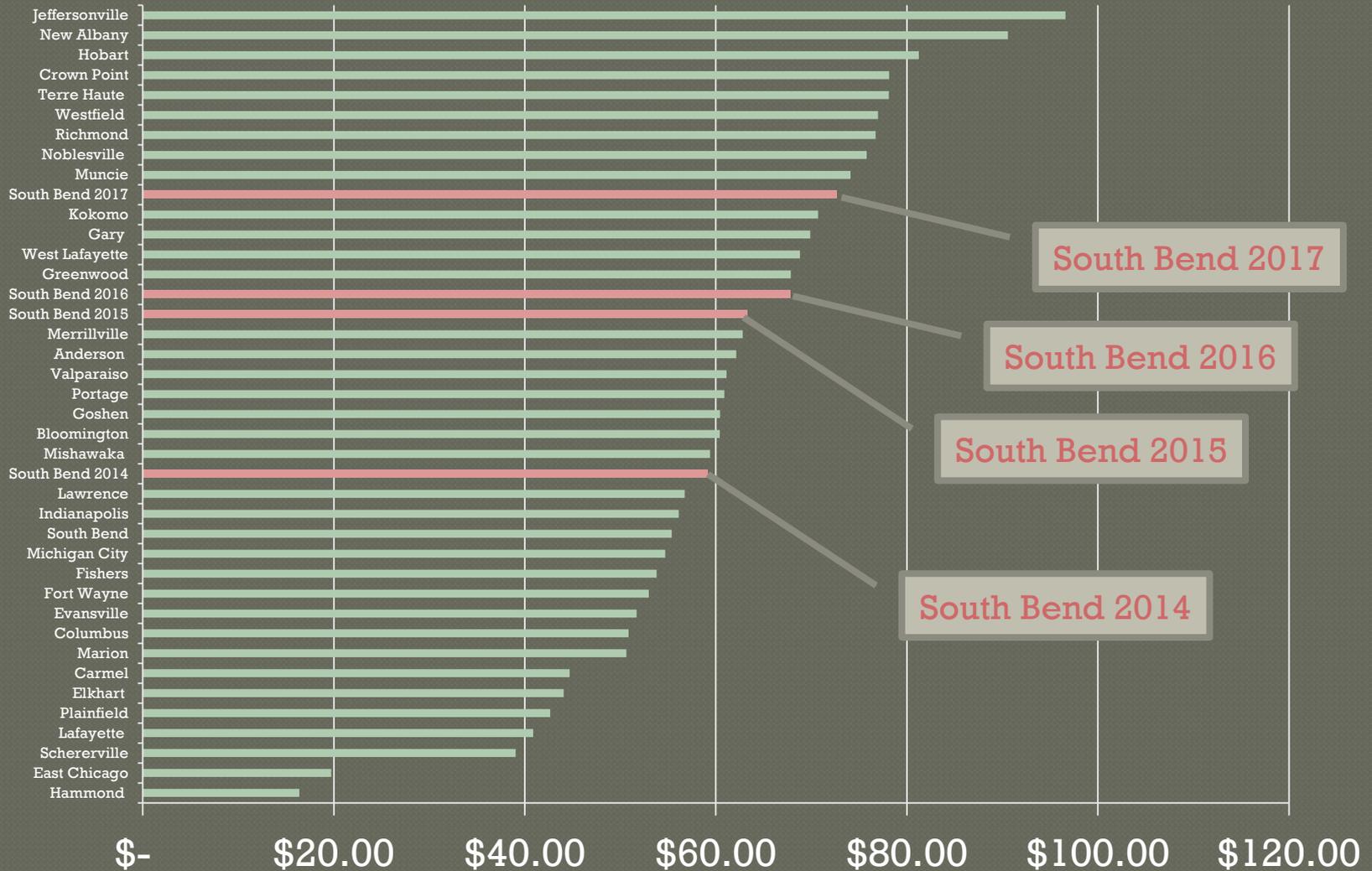
# 2014-2017 Rate Increases

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- Rates Even Over Time
- Financially Sound
- Meet Regulatory Requirements
- 9 % per year
- Average \$3.44/month/year (through 2029)

2014	2015	2016	2017
\$3.64	\$3.96	\$4.32	\$4.71

# Monthly Sewer & Water Bill for 5,000 Gallons Population >25,000



# Why we need to continue to fund this Plan!

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- **It's the right thing to do** – reducing the amount of untreated sewage overflowing to the St. Joe river will improve the quality of Life for our community.
- **EPA** and **IDEM** have mandated that we complete the plan in 20 years or face significant fines and penalties.
- It will require 16 more years of \$25 million plus to complete plan. Delaying funding makes the future increases higher.

# Thank You

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# Consent Decree – Stipulated Penalties

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- Penalties are for “failing to perform any obligation required by this Decree, including Nine Minimum Control Compliance Plan, LTCP, or any Supplemental Compliance Plan required by this plan, including specified schedules in those plans...”

<b>Penalty per Violation per Day Reporting Requirements</b>	<u>1<sup>st</sup> thru 30<sup>th</sup> day</u> \$500	<u>31<sup>st</sup> thru 59<sup>th</sup> day</u> \$1,000	<u>60<sup>th</sup> day and beyond</u> \$2,000
<b>Penalty per Violation per Day Compliance Requirements</b>	<u>1<sup>st</sup> thru 14<sup>th</sup> day</u> \$1,000	<u>15<sup>th</sup> thru 30<sup>th</sup> day</u> \$2,000	<u>31<sup>st</sup> day and beyond</u> \$4,000