

The Importance of the Wastewater and Stormwater Improvements

Presented by The Town of Clarksville





Current Condition



Wastewater Treatment Plant

- Built in 1987 as one of the last trickling filter plants in the State of Indiana with capacity of 3.1 MGD
- Major overhaul in 1995 to increase capacity to the following:
 - Average Daily Flow: 5 million gallons per day (MGD)
 - Peak Hourly: 11.5 MGD
- Minor Headworks Improvements in 2002
- Current Flows
 - Average Daily Flow: 3.32 MGD
 - Peak Hourly: 12.13 MGD



Collection System

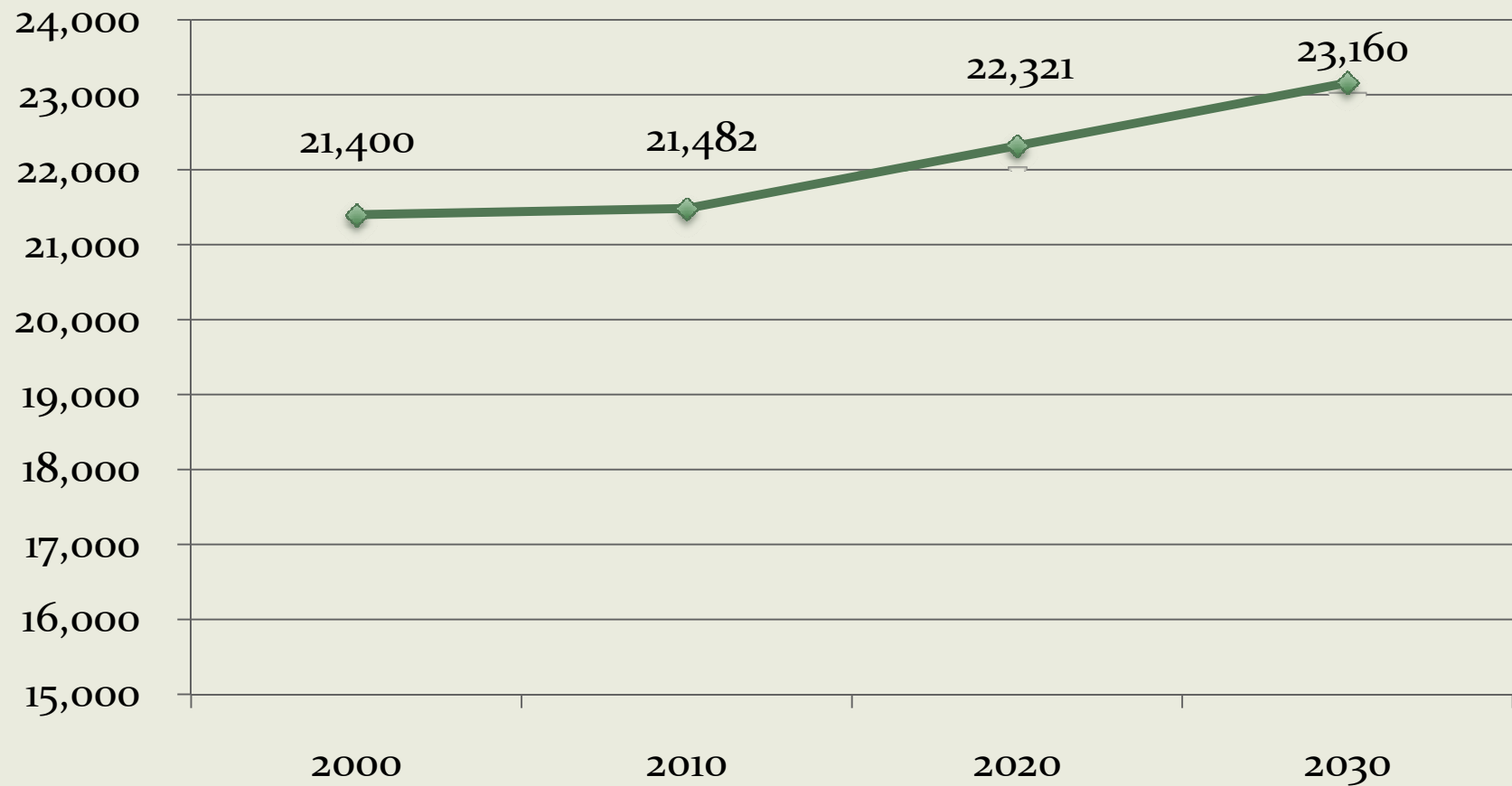
- Over 72 miles of underground piping
- 34 pump stations
 - 22 installed before 1986
- Services over 6,000 homes and 700 businesses



Stormwater System

- Over 300,000 feet of piping
- Over 2,200 catch basins
- 99 outfalls into local streams and rivers

Population Growth



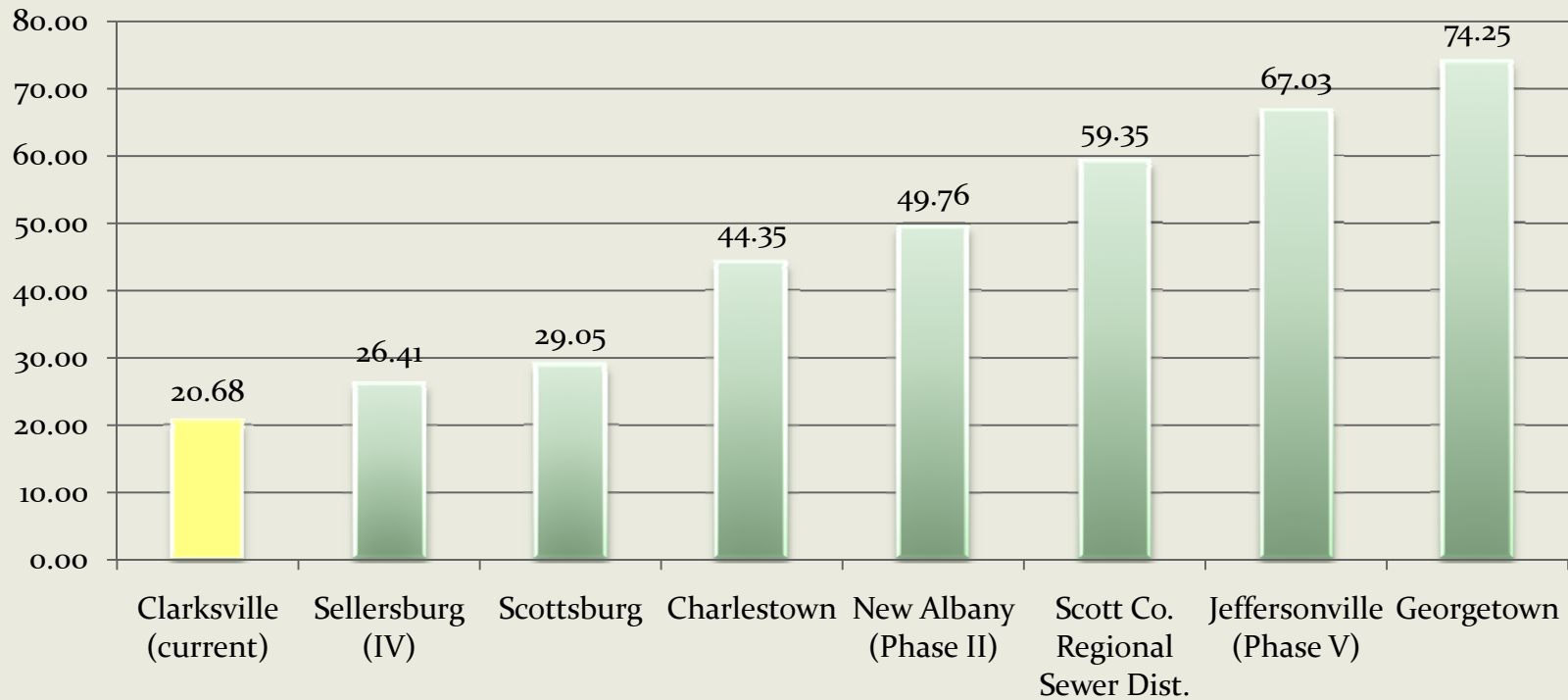


Growth (since last major plant overhaul in 1995)

- Veteran's Parkway was built and developed
- Expansion of housing in the Northern parts of Town
- Increased Development along Lewis and Clark and Greentree Blvd
- 1478 tap ins/new sewer hook-ups

Existing Rates

Average Monthly Bill





Major Issues



NPDES Permit Compliance

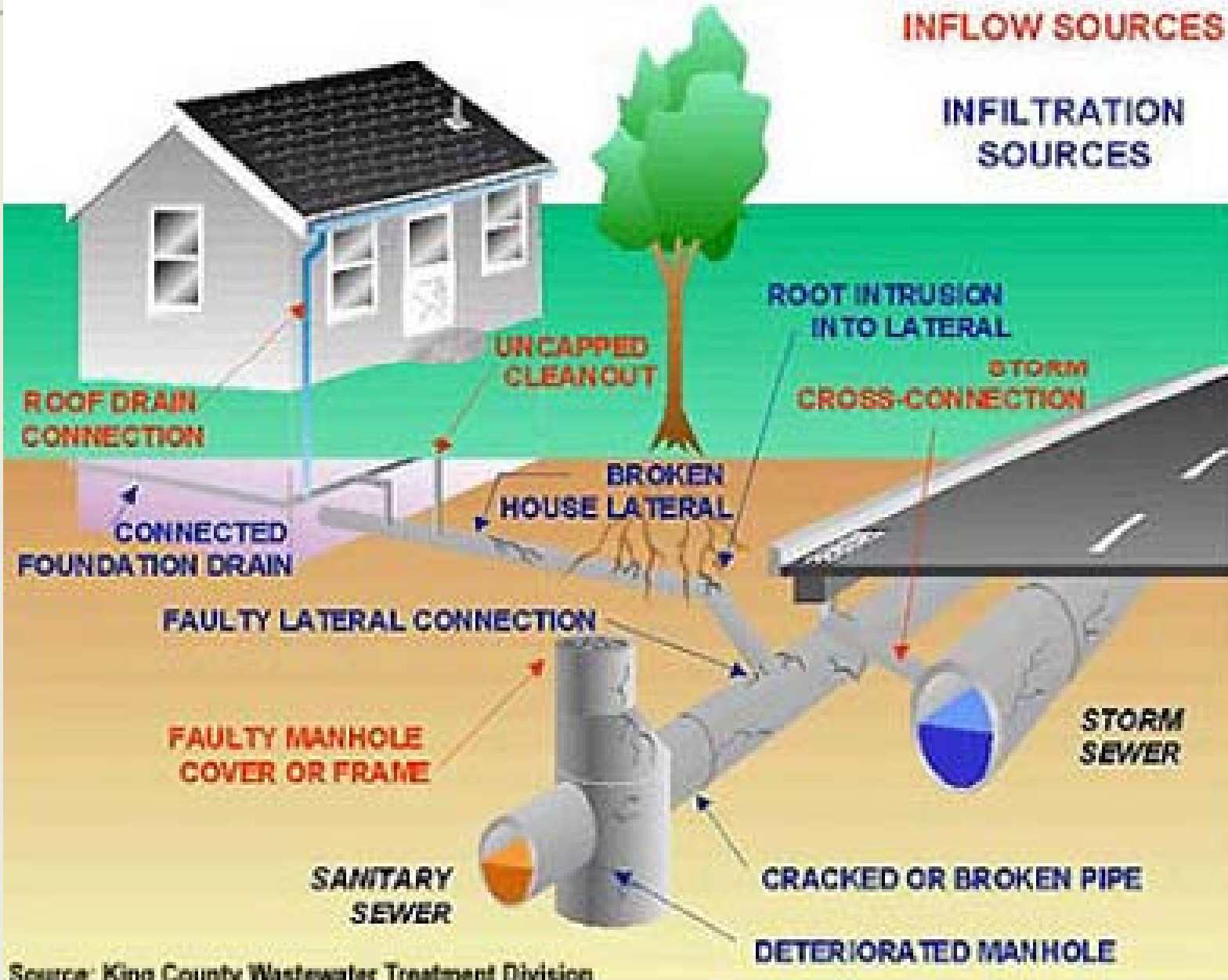
- Three Major Issues:
 - Collection System Overflows – Current Permit Violations
 - Mercury Limit Compliance by October 2011
 - Anticipated Nutrient Limits for Future Permit Renewal

Collection System Overflows

- Result in raw sewage being discharged onto the ground and waterways
- Primarily a Result of Heavy Rains
- During Rain Events Flows exceed the WWTP Capacity and Result in Overflows Upstream
- Since 2009...
 - 43 overflows have occurred
 - Includes 19 in 2009
 - 4 in 2010
 - 19 in 2011
 - 36 were a direct result of wet weather
- Each overflow is a violation of the Clean Water Act

INFLOW SOURCES

INFILTRATION SOURCES



Source: King County Wastewater Treatment Division

Mercury Limit Compliance

- Must come into compliance with new permit limitation by October 2011
- Since July of 2008, the Town has...
 - Met the limit: 15 times
 - Failed to meet the limit: 8 times
- Failure to meet the limit after October 2011 will be a permit violation and could potentially result in a fine for non-compliance



Nutrient Limits

- WWTP discharging to the Ohio River will be subject to nutrient limits in the near future.
- Nutrient limits will include nitrogen and phosphorus
- Expected that the next permit renewal will set nutrient limits and dates for compliance
- Current WWTP cannot meet expected nutrient limits for the Ohio River

Stormwater Issues

- Next permit will require sampling of water
- Upcoming Unfunded Federal Mandate Requirements
- Known areas of frequent flooding including:
 - Maple Court
 - Beechwood Manor
 - Irving Drive
 - Lewis and Clark at Brown's Station Way



Potential Consequences

Consequences - Consent Decree

- If the Town does not address these Major Issues it could eventually come under a **Consent Decree**
- Agreement between EPA, IDEM and the community
- Binding Agreement that sets forth how the community must address WWTP and Collection System issues
- Used instead of a lawsuit, to avoid a lengthy legal battle
- Currently New Albany, Jeffersonville, and Louisville are under federal consent decrees
- Rates will be increased to support consent decree requirements

Results of Surrounding Consent Decrees

- Jeffersonville
 - Eliminate all overflows
 - Total cost to the City: 100 to 150 million dollars
- New Albany
 - All new development must be approved by IDEM and EPA
 - Required to remove all infiltration and inflow (I&I) from their collection system
 - Total Cost so far: Approximately \$74 million dollars
- Louisville
 - Fined a total of \$1,230,000
 - Must eliminate all Sanitary Sewer Overflows by 2024
 - Estimated Cost of compliance: \$850,000,000



**If Clarksville came under a
Consent Decree
What could happen?**



Potential Effects and Consequences

- Upgrade WWTP
- Repair/Replace significant portions of the collection system
- Upgrade of the Town's drainage system to handle the water that the Collection System system used to transport
- Moratorium on any new development
- Potential Fines and penalties (Up to \$25,000 a day)
- Loss of control over the Wastewater System
- Town will have no choice on the improvements, EPA and IDEM will dictate
- Potential Cost to the Town: 40-50 million



Current Finances

Current Utility Finances

- Sewage utility (Wastewater and Stormwater) is currently operating at a net deficit
- In 2010...
 - Total Receipts: \$4,321,019
 - Total Disbursements: \$4,679,592
 - Cash Decrease (Amount pulled from reserves): \$358,573



Proposed Solutions

Proposed Improvements (Wastewater)

- Repair and Replacement of Existing Facilities
- Rehabilitation of 10 Collection System Pump Stations
- Upgrade Existing WWTP to meet mercury and nutrient discharge limits



Costs

Improvement	Estimated Cost
Repair and Replacement of Existing Facilities	\$1,966,250
Rehabilitation of 10 Collection System Pump Stations	\$2,846,250
New UV disinfection system	\$1,204,375
Upgrade Existing WWTP (includes new treatment process, new influent pump station, effluent line modifications and pumps)	\$12,203,125
Total Estimated Costs	\$18,220,000



Proposed Improvements (Stormwater)

- Development of a solution to alleviate flooding along Maple Court and in Beechwood Manor
- Rehab and enlargement of existing pipes
- Estimated Cost: 3 million



**How do we pay for
everything?**



Option 1

Complete recommended improvements

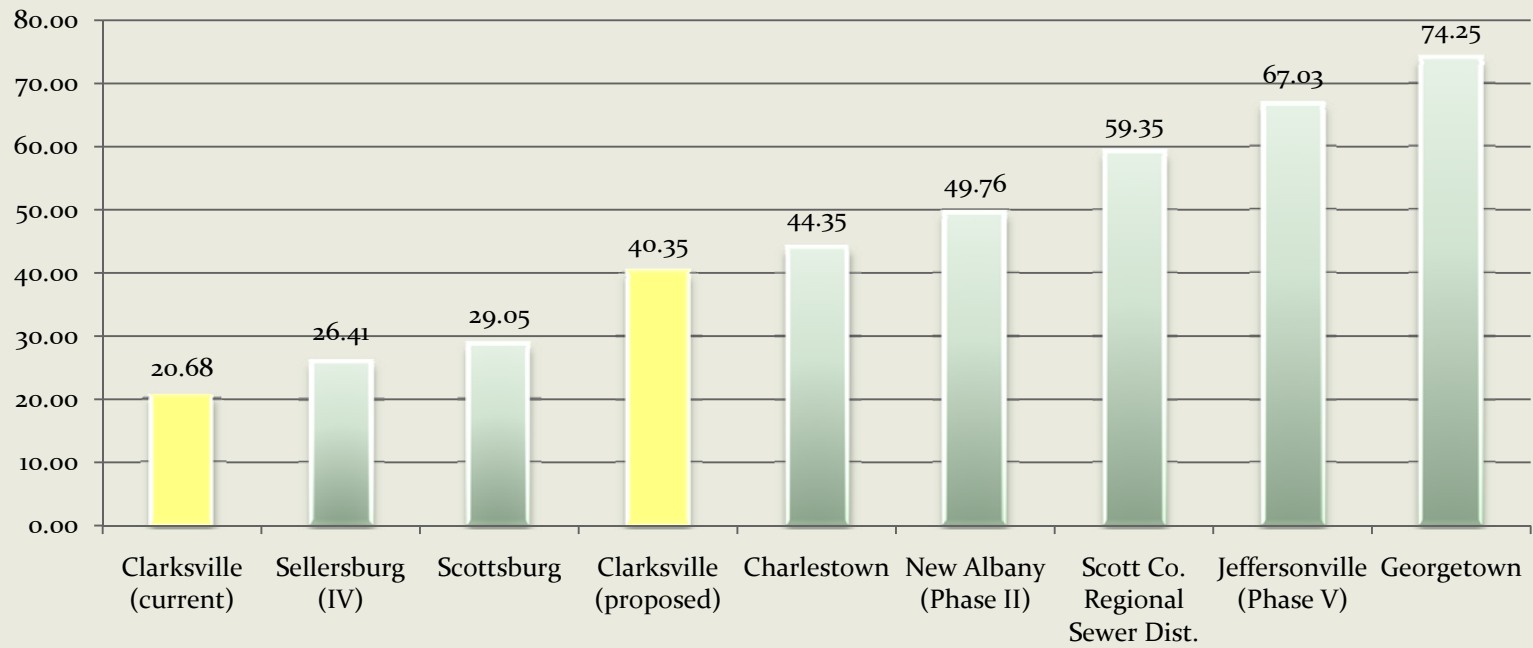
Costs (Wastewater)

- Current Operations
 - Additional Revenues required (annually): \$783,000
- Improvements Costs
 - Estimated Additional Revenues required (annually):
\$ 1,926,400
- Combined costs
 - Additional Revenues required (annually): \$2,709,200

Rates (Wastewater)

- Current Rates
 - Per 100 Cubic Feet: \$3.10
 - Average Monthly Bill: \$20.68
- Proposed Rates (estimated)
 - Per 100 cubic feet: \$6.05
 - Average monthly bill: \$40.35

Average Monthly Bill



Costs (Stormwater)

- Improvement Costs
 - Additional Revenues required (annually): \$150,100

Rates (stormwater)

- Current Rates
 - Per ERU: 2.95
- Proposed Rates
 - Per ERU: 3.40



Option 2

Wait for a consent decree

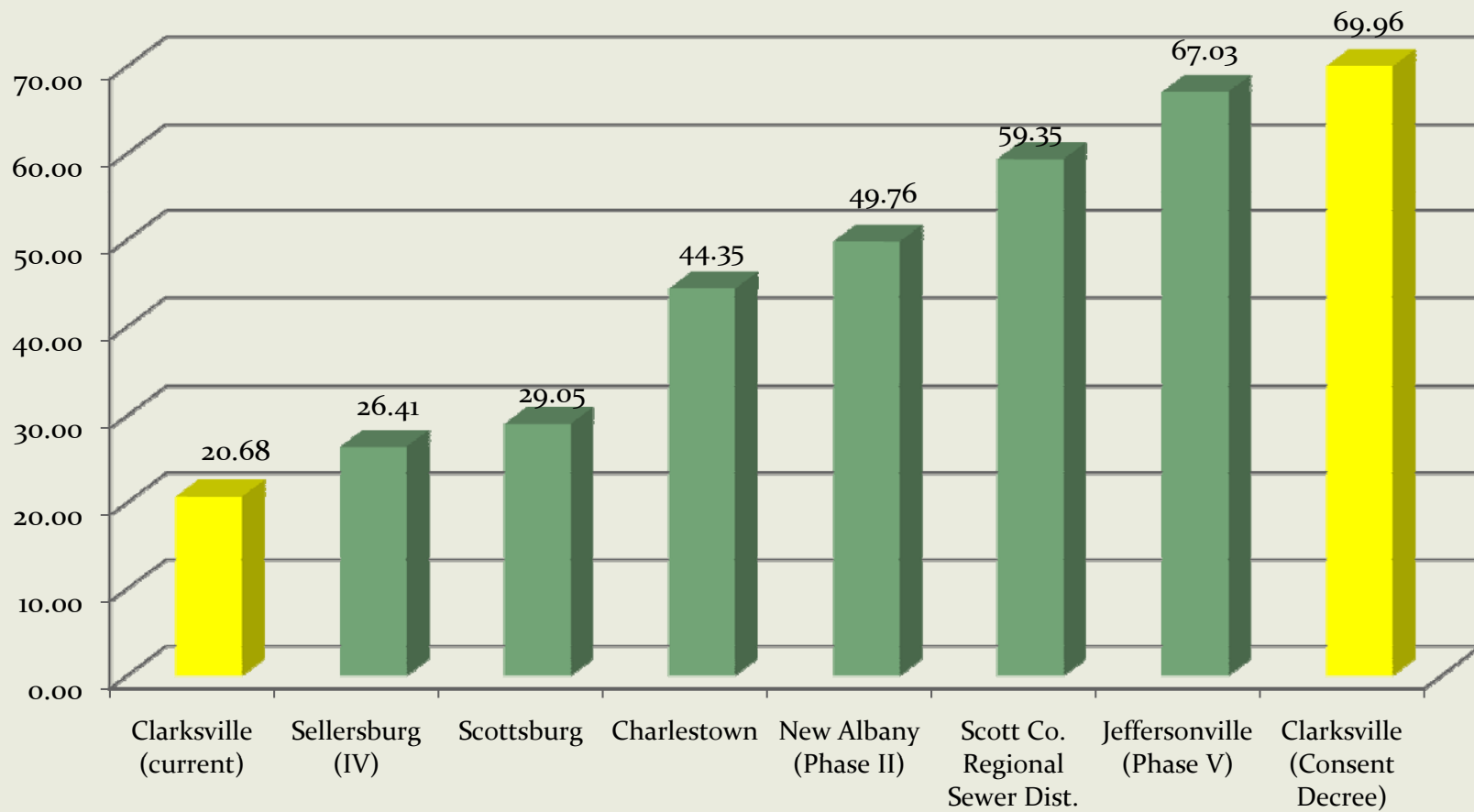
Costs

- Operation Costs
 - Additional Revenues required (annually): \$869,300
- Improvements Costs
 - Additional Revenues required (annually): \$7,587,549
- Combined costs
 - Additional Revenues required (annually): \$8,456,849

Rates

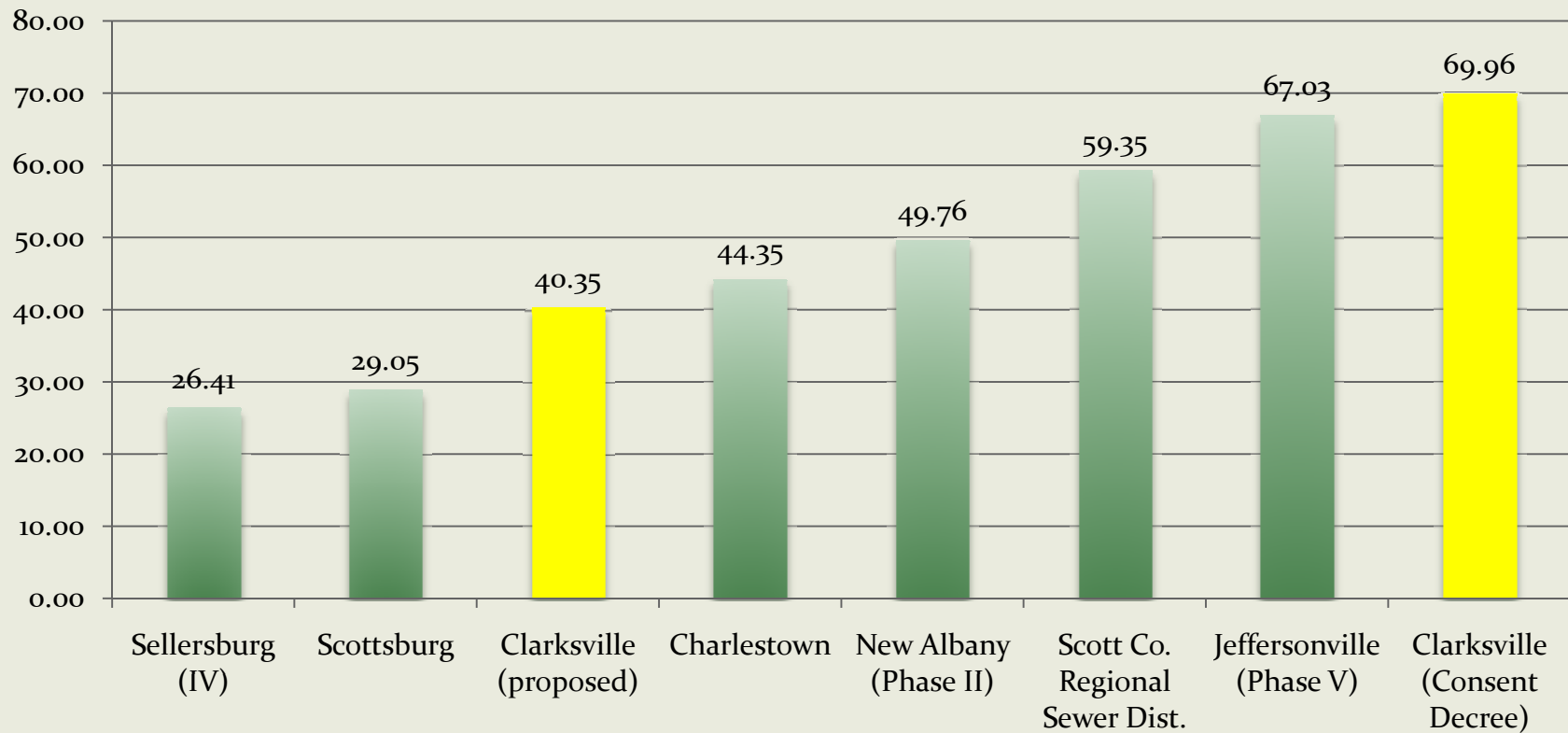
- Current Rates
 - Per 100 Cubic Feet: \$3.10
 - Average Monthly Bill: \$20.68
- Consent Decree Rates
 - Per 100 cubic feet: \$10.49
 - Average monthly bill: \$69.96

Average Monthly Bill



Which do you want?

Average Monthly Bill





What's Next?

Next Steps

- Town Council must make a decision to go forward with 1 of 3 options
 - Option 1: Move forward with proposed improvements
 - Option 2: Raise rates to cover operating deficit
 - Option 3: Hold off on any improvements and rate increases

If Council Chooses...

- Option 1: Move forward with proposed improvements
 - Finalization and adoption of new rates
 - Issuance of bonds to fund improvements
 - Begin design and engineering
 - Projected construction dates: July 2012 to November 2013
- Option 2: Raise rates to cover deficit
 - Finalization and adoption of new rates
- Option 3: Hold off on any improvements and rate increases
 - The Town Council will give direction to staff on if they want to see other options or continue to work on the issue



Questions



Thank you

- Thank you for your consideration of the needed improvements

Town of Clarksville
American-Water
Wastewater Treatment Plant
HDR Engineering

Additional Comments and Questions

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