

# The Ashford Sewer System

## Introduction

---

- Goal of meeting: Establish common ground on the history and where we are right now
- Purpose of 299-page report, with a 7-page summary (to be made available on the website):
  - To summarize the history of the Ashford sewer system
  - Research and present revenue and expenses given limited historical data
    - Sewer billing system started in 2007; accounting records go back to 2012
  - Assemble and share all documentation related to the Ashford system
  - Provide common ground on where we are right now
- 20 homes are serviced by the Ashford Sewer System, a community-based sewer system
  - 16 originally + 4 added at a later date

|               |               |               |             |
|---------------|---------------|---------------|-------------|
| • 101 Ashford | • 116 Ashford | • 124 Ashford | • 109 Beech |
| • 103 Ashford | • 118 Ashford | • 125 Ashford | • 3 Red Oak |
| • 111 Ashford | • 120 Ashford | • 127 Ashford | • 5 Red Oak |
| • 112 Ashford | • 121 Ashford | • 105 Beech   | • 7 Red Oak |
| • 114 Ashford | • 123 Ashford | • 107 Beech   | • 2 Spruce  |

# The Ashford Sewer System History

---

- Built in 1995 by developer Lance Sumser/SunTech Associates
  - DEP required it to be co-permitted by Sumser/SunTech and Kennett Township
  - Documentation from 1993-1995 shows that all parties involved in creating the system understood that it was experimental in nature and worked together
    - “Experimental in nature to determine whether sand filtration was effective on nitrate removal”
  - The system had issues with nitrate removal almost immediately that ultimately resulted in DEP citation and fines, paid by the Twp in 2004
  - There were numerous issues with Sumser falling behind on paying the vendors serving as certified operators 1999-2003: as co-permittee, Kennett Township, became more involved and de-facto responsibility shifted to the Township in 2003 when Sumser relinquished all duties
  - 2002-2006: Kennett Township funded major repairs and improvements and maintenance costs
  - Later 2005/Early 2006 Township & Ashford HOA agreed that the Township would not attempt to recoup past costs beyond the bond received in 2003 (\$21K), a \$4K settlement with the HOA, and current and future billing revenue.
  - The Township took dedication of the system in August 2006

# The Ashford Sewer System

## Financial Summary

- The cumulative balance through 2022 is estimated at **-\$15K**
  - Township accounting system records are only available from 2012 forward. Expenses from 2006-2011 are based on paper documentation. They are understated as they do not include all utilities, engineering, legal and potentially miscellaneous service and pumping fees.
  - Engineering & Chapter 94 report production for 2017-2019 has been estimated.
- Community-based systems are not efficient, e.g. Radley Run
- The Ashford Sewer System has high operating and capital costs and very small base of users to those costs
  - It's a sand filter system which requires the sand bed to be changed out every 10-15 years (~\$55K-\$60K) – the goal is to extend that time period as long as possible
  - It also has multiple pump stations, tanks, filters, & beds that require cleaning & maintenance

| Year         | Fees Billed    | Expenses       | Net            |
|--------------|----------------|----------------|----------------|
| 2006         | 36,000         | 41,313         | -5,313         |
| 2007         | 29,600         | 12,553         | 17,047         |
| 2008         | 37,960         | 12,287         | 25,673         |
| 2009         | 22,840         | 14,532         | 8,308          |
| 2010         | 30,800         | 53,232         | -22,432        |
| 2011         | 32,100         | 18,782         | 13,318         |
| 2012         | 36,246         | 124,179        | -87,933        |
| 2013         | 47,782         | 42,623         | 5,159          |
| 2014         | 41,100         | 58,429         | -17,329        |
| 2015         | 42,320         | 31,139         | 11,181         |
| 2016         | 43,280         | 34,036         | 9,244          |
| 2017         | 43,280         | 27,257         | 16,023         |
| 2018         | 43,280         | 34,470         | 8,810          |
| 2019         | 43,280         | 24,878         | 18,402         |
| 2020         | 43,280         | 34,439         | 8,841          |
| 2021         | 43,280         | 84,334         | -41,054        |
| <u>2022F</u> | <u>43,280</u>  | <u>26,709</u>  | <u>16,571</u>  |
| <b>Total</b> | <b>659,708</b> | <b>675,191</b> | <b>-15,483</b> |

# The Ashford Sewer System

## Maintenance Plan Snap-shot

- System consists of 2 treatment tanks with outlet filters, collection pump station, sand filter dosing pump station, two buried sand filters, disposal bed dosing pump station, & 2 subsurface disposal beds

### Day-to-day Operations Contract

- At least 1 visit per week by certified operator to operate in accordance w/ DEP permit
- Inspect pump stations and tanks, test pumps, check wet wells for grease
- Record hours, electric meter readings, and flowmeter readings
- Inspect beds, clean-outs, and other above ground and visually available pieces of system
- Collect effluent samples and coordinate laboratory testing of various types at various intervals per requirements
- Monitor & pursue sludge hauling as needed
- Perform and/or recommend preventative maintenance
- Prepare monthly report to Township and Township engineer
- Complete DEP reporting requirements
- 24/7 emergency on-call
- ~\$1500/month including testing/lab

### Annual Maintenance Contract

- Deeper inspection and cleaning such as
  - Pull, inspect and clean pumps & floats
  - Inspect, test & clean control panels and alarms
  - Pressure washing pump stations, distribution lines, drain system pipes, etc.
  - Clean and inspect manhole
- Annual report summarizing all maintenance activities and findings, describing condition of the facility and providing any recommended repairs or capital improvements.
- ~\$4800/year

### Ad Hoc

- Pump & Haul as needed throughout the year; usually 2-3x/year @ \$800 each
- Emergency repairs

### Engineering / DEP

- Chapter 94 Annual DEP Report – Run-rate \$4-5K per year
- DEP Permit \$5K every 5 years
- Legal

### Utilities

- Electric, phone and internet all required onsite ~\$188/month

# The Ashford Sewer System

## Future forecast

- Given the slight negative for prior 16 years and forecasted negative for next 14 years, our preliminary view is that rates should be kept flat at this time
- Final update to be provided when new maintenance contracts are in place
- We don't believe there is room to reduce by any meaningful amount but will aim to keep static as long as possible
- Assumptions
  - Maintenance plan as discussed
  - 2%/year inflation on expenses (~\$31K per 1%)
  - \$4K/year in engineering is reduction from ~\$6K run-rate due to enhancement of contracts and new Director of Public Works
  - \*2023: Electrical and generator replacement needed
  - \*\*2036: Next sand bed replacement
  - Includes very modest forecast for other repairs and replacement parts – needs deeper review by our new Director of Public Works

| Year                   | Fees @ current rate | Expenses         | Net            | Balance        |
|------------------------|---------------------|------------------|----------------|----------------|
| Prior Balance          |                     |                  |                | <b>-15,483</b> |
| 2023                   | 43,280              | 71,556*          | -28,276        | -43,759        |
| 2024                   | 43,280              | 33,177           | 10,103         | -33,656        |
| 2025                   | 43,280              | 33,811           | 9,469          | -24,187        |
| 2026                   | 43,280              | 34,457           | 8,823          | -15,364        |
| 2027                   | 43,280              | 40,116           | 3,164          | -12,200        |
| 2028                   | 43,280              | 35,788           | 7,492          | -4,708         |
| 2029                   | 43,280              | 36,474           | 6,806          | 2,098          |
| 2030                   | 43,280              | 37,174           | 6,106          | 8,204          |
| 2031                   | 43,280              | 37,887           | 5,393          | 13,597         |
| 2032                   | 43,280              | 43,615           | -335           | 13,262         |
| 2033                   | 43,280              | 39,357           | 3,923          | 17,185         |
| 2034                   | 43,280              | 40,114           | 3,166          | 20,351         |
| 2035                   | 43,280              | 40,887           | 2,393          | 22,745         |
| 2036                   | <u>43,280</u>       | <u>116,674**</u> | <u>-73,394</u> | <b>-50,650</b> |
| <b>Total 2023-2036</b> | <b>605,920</b>      | <b>641,087</b>   | <b>-35,167</b> |                |

# The Ashford Sewer System

## Are there any other options?

---

- AECOM reviewed other options before the sand filters were replaced in 2021
- The capital cost to construct deemed them not economically practical
  - Construction costs ranged from \$240K-\$350K vs. \$59K for sand filter replacement
  - We don't have reliable information on life expectancy or operations and maintenance costs of the new systems
- Revisiting alternatives in the future may be warranted

| Alternatives                        | Construction Cost | Contingency (15%) | Est. Total Cost  |
|-------------------------------------|-------------------|-------------------|------------------|
| Premier Tech EcoFlo® System         | \$211,700         | \$31,700          | <b>\$243,400</b> |
| Orenco AdvanTex® Treatment System   | \$303,600         | \$45,500          | <b>\$349,100</b> |
| Existing Buried Sand Filter Rebuild | \$51,600          | \$7,700           | <b>\$59,300</b>  |

# The Ashford Sewer System

## Next Steps

---

- The Township Engineering firm, AECOM, drafted a Request for Proposal (RFP) for each monthly and annual maintenance contracts to optimize mix of proactive maintenance and long-term capital projects
- New Director of Public Works is getting up-to-speed on the Ashford Sewer System
  - Will review and finalize the drafted RFPs
- Township will pursue new contracts with qualified vendors
- Future forecasted expenditures will be updated for a final rate decision.
  
- There are things that the homeowners can do to help!
  - Most critically, do not put oil or grease down your drain
  - Also avoid harsh drain cleaners, pesticides, paint and paint thinner, sanitary napkins, tampons, diapers, paper towels, bones, eggshells and coffee grounds