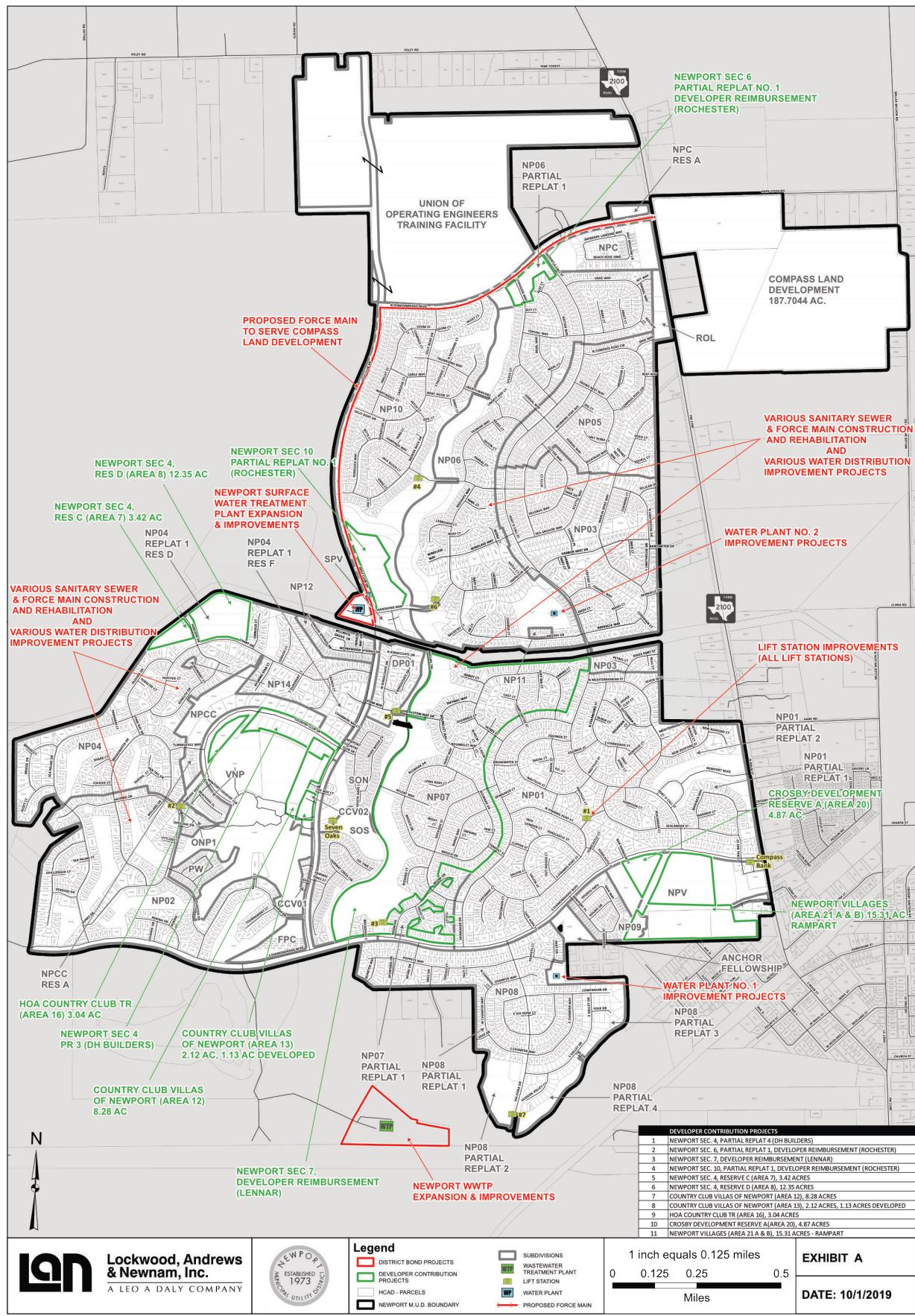


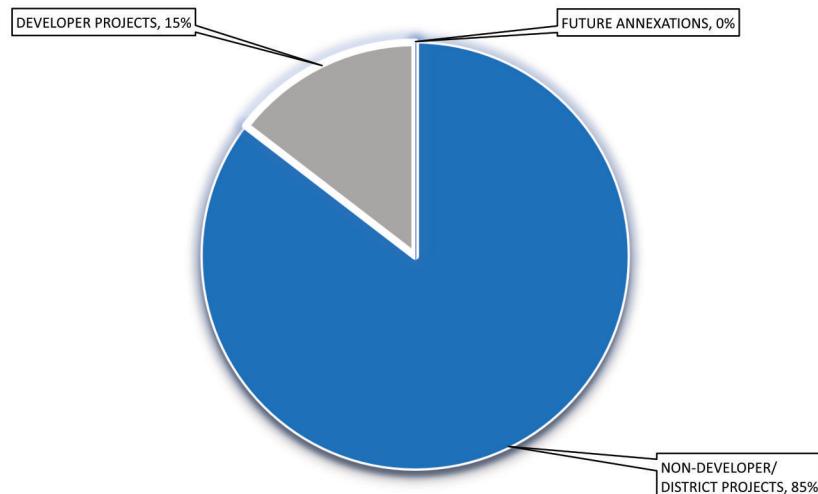
# NEWPORT M.U.D.

## CAPITAL IMPROVEMENT PLAN AND BOND ELECTION PROJECTS

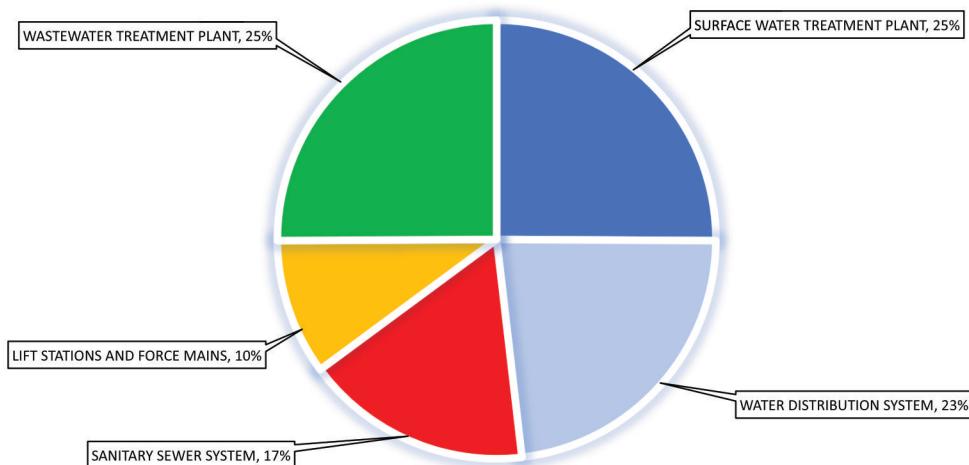


# NEWPORT M.U.D. CAPITAL IMPROVEMENT PLAN

DISTRICT VS. DEVELOPER PROJECTS



DISTRICT PROJECT BREAKDOWN

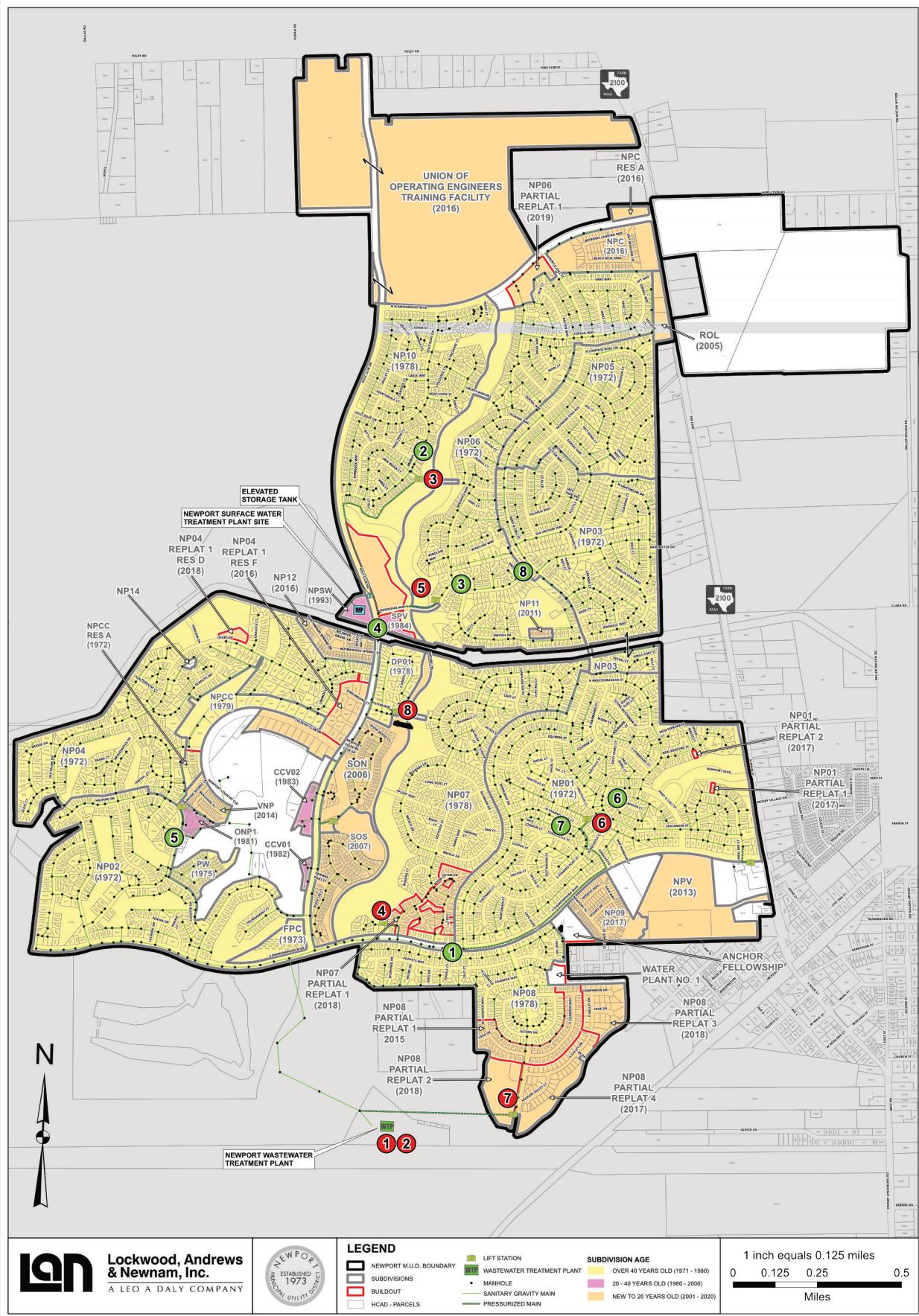


**Lockwood, Andrews  
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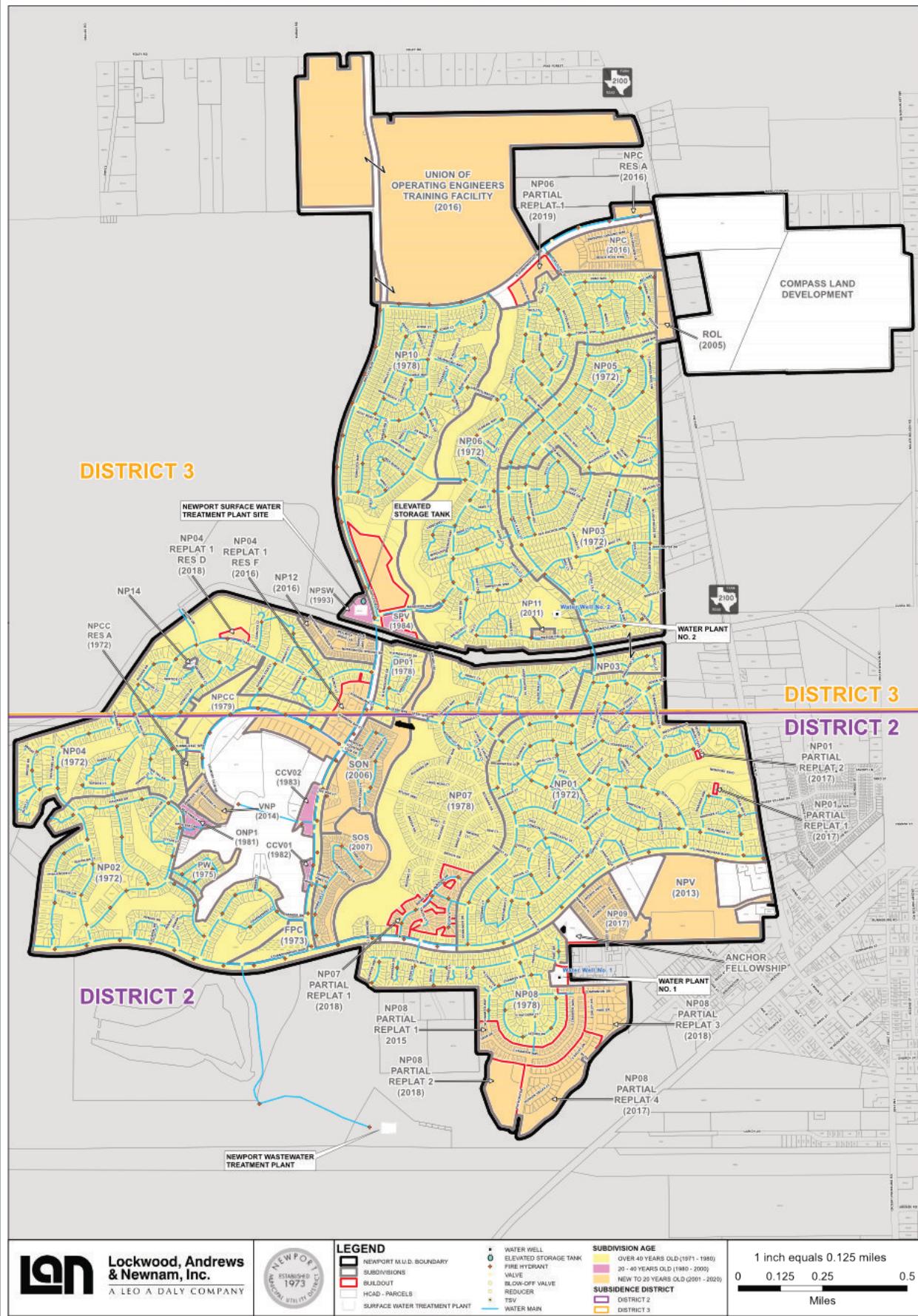
# NEWPORT M.U.D.

## SANITARY SEWER SYSTEM & SUBDIVISIONS



# NEWPORT M.U.D.

## WATER DISTRIBUTION SYSTEM, SUBDIVISIONS & SUBSIDENCE DISTRICT



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NEWPORT  
MUNICIPAL  
UTILITY DISTRICT  
1973

# NEWPORT M.U.D.

## CAPITAL IMPROVEMENT PLAN

### Newport MUD - Capital Improvement Plan

As of 8/15/19

| Item   | Amount             | Projected Year when Funds will be needed |                    |                     |                    |                     |                     |                    |                    |                    |                    | Total Needs<br>2020 to<br>2030 | Unfunded<br>Balance<br>in 2020 | Total Needs<br>2021 to<br>2030 | Total Needs<br>2020 to<br>2030 | Rounded             |
|--|--------------------|--|--------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------|
|  |                    | 2020                                     | 2021               | 2022                | 2023               | 2024                | 2025                | 2026               | 2027               | 2028               | 2029               |                                |                                |                                |                                |                     |
| <b>DEVELOPER CONTRIBUTION ITEMS (Including Dev. Interest)</b>  |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| 1 Newport Section 4, PR 4 (DH Builders)                        | \$187,000          |  |                    |                     |                    |                     | \$187,000           |                    |                    |                    |                    |                                |                                |                                | \$187,000                      |                     |
| 2 Newport Section 6, Partial Replat 1, Dev. Reim. (Rochester ) | \$325,000          |  | \$325,000          |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                | \$325,000                      |                     |
| 3 Newport Section 7, Developer Reimbursement (Lennar)          | \$3,500,000        |  | \$3,500,000        |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                | \$3,500,000                    |                     |
| 4 Newport Section 10, Partial Replat 1 Dev. Reim. (Rochester)  | \$650,000          |  | \$650,000          |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                | \$650,000                      |                     |
| 5 Newport Sec 4, Reserve C (Area 7), 3.42 Acres                | \$191,483          |  |                    |                     |                    | \$191,483           |                     |                    |                    |                    |                    |                                |                                |                                | \$191,483                      |                     |
| 6 Newport Sec 4, Reserve D (Area 8), 12.35 Acres               | \$713,708          |  |                    |                     |                    | \$713,708           |                     |                    |                    |                    |                    |                                |                                |                                | \$713,708                      |                     |
| 7 Country Club Villas of NP (Area 12), 8.28 Acres              | \$481,608          |  |                    |                     |                    | \$481,608           |                     |                    |                    |                    |                    |                                |                                |                                | \$481,608                      |                     |
| 8 Country Club Villas of NP (Area 13), 2.12 Acres, 1.13 ac Dev | \$58,025           |  |                    |                     |                    | \$58,025            |                     |                    |                    |                    |                    |                                |                                |                                | \$58,025                       |                     |
| 9 HOA Country Club Tr (Area 16) 3.04 Acres                     | \$516,423          |  |                    |                     |                    | \$516,423           |                     |                    |                    |                    |                    |                                |                                |                                | \$516,423                      |                     |
| 10 Crosby Development Reserve A (Area 20), 4.87 Acres          | \$715,738          |  |                    |                     |                    | \$715,738           |                     |                    |                    |                    |                    |                                |                                |                                | \$715,738                      |                     |
| 11 Newport Villages (Area 21) 15.31 Acres - Rampart            | \$1,465,276        |  |                    |                     |                    | \$1,465,276         |                     |                    |                    |                    |                    |                                |                                |                                | \$1,465,276                    |                     |
| <b>DEVELOPER CONTRIBUTION ITEMS TOTALS</b>                     | <b>\$8,804,260</b> | <b>\$0</b>                               | <b>\$0</b>         | <b>\$4,475,000</b>  | <b>\$0</b>         | <b>\$0</b>          | <b>\$4,329,260</b>  | <b>\$0</b>         | <b>\$0</b>         | <b>\$0</b>         | <b>\$0</b>         | <b>\$0</b>                     | <b>\$0</b>                     | <b>\$8,804,260</b>             | <b>\$8,804,260</b>             |                     |
| <b>DISTRICT ITEMS</b>  |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| 1 Surface Water Plant  | \$2,625,000        | \$120,000                                | \$0                | \$0                 | \$900,000          | \$8,400,000         | \$0                 | \$0                | \$0                | \$0                | \$0                |                                |                                | \$12,045,000                   | \$9,420,000                    |                     |
| 2 Water Plants   | \$240,000          | \$0                                      | \$0                | \$0                 | \$0                | \$0                 | \$0                 | \$300,000          | \$0                | \$0                | \$0                |                                |                                | \$540,000                      | \$300,000                      |                     |
| 3 Water Distribution System                                    | \$720,000          | \$720,000                                | \$680,000          | \$700,000           | \$740,000          | \$740,000           | \$720,000           | \$590,000          | \$740,000          | \$780,000          | \$780,000          |                                |                                | \$7,910,000                    | \$7,190,000                    |                     |
| 4 Sanitary Sewer System  | \$625,000          | \$700,000                                | \$740,000          | \$720,000           | \$600,000          | \$600,000           | \$600,000           | \$600,000          | \$600,000          | \$600,000          | \$600,000          |                                |                                | \$6,985,000                    | \$6,360,000                    |                     |
| 5 Lift Station & Force Mains                                   | \$330,000          | \$125,000                                | \$90,000           | \$172,000           | \$70,000           | \$70,000            | \$165,000           | \$0                | \$60,000           | \$50,000           |                    |                                |                                | \$1,132,000                    | \$1,132,000                    |                     |
| 6 Wastewater Treatment Plant                                   | \$1,925,000        | \$0                                      | \$0                | \$0                 | \$0                | \$9,500,000         | \$310,000           | \$0                | \$0                | \$0                | \$0                |                                |                                | \$11,735,000                   | \$9,810,000                    |                     |
| 7 Detention Ponds  | \$0                | \$0                                      | \$0                | \$0                 | \$0                | \$0                 | \$0                 | \$0                | \$0                | \$0                | \$0                |                                |                                | \$0                            | \$0                            |                     |
| 8 Administration Building                                      | \$250,000          | \$250,000                                |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$250,000                      | \$0                            |                     |
| 9 Water Line Ext. Phase 1 to serve Compass Tr Defined Area     | \$190,000          |  | \$190,000          |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$190,000                      | \$190,000                      |                     |
| 10 Water Line Ext. Phase 2 to serve Compass Tr Defined Area    | \$270,000          |  |                    | \$270,000           |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$270,000                      | \$270,000                      |                     |
| 11 Force Main Phase 1 to serve Compass Tr Defined Area         | \$470,000          |  | \$470,000          |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$470,000                      | \$470,000                      |                     |
| 12 Force Main Phase 2 to serve Compass Tr Defined Area         | \$960,000          |  |                    | \$960,000           |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$960,000                      | \$960,000                      |                     |
| 13 Lift Station to serve Compass Tr. Defined Area              | \$860,000          |  | \$860,000          |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                | \$860,000                      | \$860,000                      |                     |
| <b>DISTRICT ITEMS TOTAL</b>                                    | <b>\$6,385,000</b> | <b>\$1,870,000</b>                       | <b>\$3,065,000</b> | <b>\$1,510,000</b>  | <b>\$3,642,000</b> | <b>\$19,310,000</b> | <b>\$1,700,000</b>  | <b>\$1,655,000</b> | <b>\$1,340,000</b> | <b>\$1,440,000</b> | <b>\$1,430,000</b> | <b>\$0</b>                     | <b>\$43,347,000</b>            | <b>\$36,962,000</b>            |                                |                     |
| <b>Contingencies</b>   |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| Contingencies (10% of District Construction Costs)             | \$638,500          | \$187,000                                | \$306,500          | \$151,000           | \$364,200          | \$1,931,000         | \$170,000           | \$165,500          | \$134,000          | \$144,000          | \$143,000          |                                |                                | \$4,334,700                    | \$3,696,200                    |                     |
| Contingencies Total  | \$638,500          | \$187,000                                | \$306,500          | \$151,000           | \$364,200          | \$1,931,000         | \$170,000           | \$165,500          | \$134,000          | \$144,000          | \$143,000          |                                |                                | \$4,334,700                    | \$3,696,200                    |                     |
| <b>Engineering</b>   |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| Engineering & Surveying (22% of Construction Costs)            | \$1,404,700        | \$411,400                                | \$674,300          | \$332,200           | \$801,240          | \$4,248,200         | \$374,000           | \$364,100          | \$294,800          | \$316,800          | \$314,600          |                                |                                | \$9,536,340                    | \$8,131,640                    |                     |
| Engineering Total  | \$1,404,700        | \$411,400                                | \$674,300          | \$332,200           | \$801,240          | \$4,248,200         | \$374,000           | \$364,100          | \$294,800          | \$316,800          | \$314,600          |                                |                                | \$9,536,340                    | \$8,131,640                    |                     |
| <b>CONSTRUCTION COSTS</b>                                      |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| <b>NON-CONSTRUCTION COSTS</b>                                  | <b>15.0%</b>       | <b>\$1,487,329</b>                       | <b>\$435,600</b>   | <b>\$1,503,671</b>  | <b>\$351,741</b>   | <b>\$848,372</b>    | <b>\$5,262,081</b>  | <b>\$396,000</b>   | <b>\$385,518</b>   | <b>\$312,141</b>   | <b>\$335,435</b>   | <b>\$333,106</b>               | <b>\$11,650,994</b>            | <b>\$273,829</b>               | <b>\$10,163,665</b>            | <b>\$10,437,494</b> |
| <b>TOTAL BOND ISSUE AMOUNT</b>                                 |                    | <b>\$9,915,529</b>                       | <b>\$2,904,000</b> | <b>\$10,024,471</b> | <b>\$2,344,941</b> | <b>\$5,655,812</b>  | <b>\$35,080,541</b> | <b>\$2,640,000</b> | <b>\$2,570,118</b> | <b>\$2,080,941</b> | <b>\$2,236,235</b> | <b>\$2,220,706</b>             | <b>\$77,673,294</b>            | <b>\$1,825,529</b>             | <b>\$67,757,764</b>            | <b>\$69,583,294</b> |
| <b>WSD Bond Capacity</b>                                       |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |
| Previous WSD Bond Capacity                                     | \$8,090,000        | -\$1,825,529                             | \$65,270,471       | \$55,246,000        | \$52,901,059       | \$47,245,247        | \$12,164,706        | \$9,524,706        | \$6,954,589        | \$4,873,647        |                    |                                |                                |                                |                                |                     |
| New Bond Authorization Amount                                  | \$2,637,412        | \$70,000,000                             | \$0                | \$0                 | \$0                | \$0                 | \$0                 | \$0                | \$0                | \$0                | \$0                |                                |                                |                                |                                |                     |
| Proposed Bond Issues during the year                           | \$9,915,529        | \$2,904,000                              | \$10,024,471       | \$2,344,941         | \$5,655,812        | \$35,080,541        | \$2,640,000         | \$2,570,118        | \$2,080,941        | \$2,236,235        | \$2,220,706        |                                |                                |                                |                                |                     |
| Remaining WSD Bond Capacity Balance                            | -\$1,825,529       | \$65,270,471                             | \$55,246,000       | \$52,901,059        | \$47,245,247       | \$12,164,706        | \$9,524,706         | \$6,954,589        | \$4,873,647        | \$4,637,412        |                    |                                |                                |                                |                                |                     |
|  |                    |  |                    |                     |                    |                     |                     |                    |                    |                    |                    |                                |                                |                                |                                |                     |



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# NEWPORT M.U.D.

## WASTEWATER TREATMENT PLANT & LIFTSTATIONS

PHOTO 1



Problem: Wastewater Treatment Plant (WWTP) facilities flooded.  
Solution: Repair damaged facilities & flood proof plant facilities.

WWTP Underwater – Hurricane Harvey, Aug. 2017

PHOTO 3



Problem: Coal tar liner is showing signs of deterioration and riser piping is corroding.  
Solution: Line wet well and replace riser piping.

Lift Station No. 4 (931 Flying Bridge Way)

PHOTO 5



Problem: Deteriorated wet well and riser pipes corroding.  
Solution: Line wet well and replace riser piping.

Lift Station No. 6 (818 Handspike Way)

PHOTO 7



Problem: Large radial crack around exterior of wet well and major cracking on pipe supports.  
Solution: Line wet well and replace pipe supports.

Lift Station No. 7 (15727 Via Dora)

PHOTO 2



Problem: Wastewater Treatment Plant (WWTP) facilities flooded.  
Solution: Repair damaged facilities & flood proof plant facilities.

WWTP Underwater – Hurricane Harvey, Aug. 2017

PHOTO 4



Problem: Severely corroded riser piping with l/l in wet well.  
Solution: Replace riser piping & line wet well.

Lift Station No. 3 (1212 S. Diamondhead Blvd)

PHOTO 6



Problem: Deteriorated wet well and riser pipes corroding.  
Solution: Line wet well and replace riser piping.

Lift Station No. 1 (514 Helmsman St)

PHOTO 8



Problem: Corroded valves and brick vault with limited working space.  
Solution: Replace valves and move to surface.

Lift Station No. 5 (1310 1/2 Stem Way Dr)



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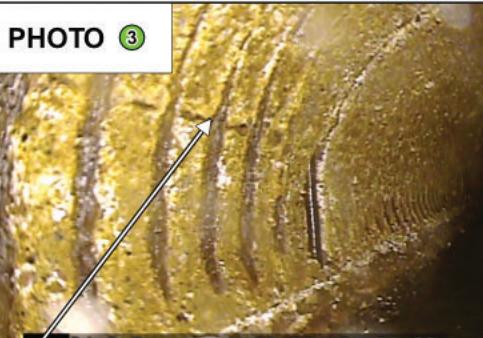
# NEWPORT M.U.D.

## SANITARY SEWER TV INSPECTION



Problem: Broken 24" Reinforced Concrete Pipe at Joint.  
Solution: Pipeburst Method.

Newport Section 1



Problem: Severe Deterioration of 18" Reinforced Concrete Pipe to the point of reinforcement now exposed.  
Solution: Cured-In-Place Pipe or Pipeburst Methods.

Newport Section 6



Problem: Longitudinal Crack at top of 12" Truss Pipe.  
Solution: Pipeburst Method.

Newport Section 2 and Oaks at Newport Section 1



Problem: Longitudinal Crack travelling as far as 10 feet in length.  
Solution: Pipeburst Method.

Newport Section 1



Problem: Longitudinal Crack with Signs of Infiltration in 8" Truss Pipe.  
Solution: Cured-In-Place Pipe Method.

Newport Section 10



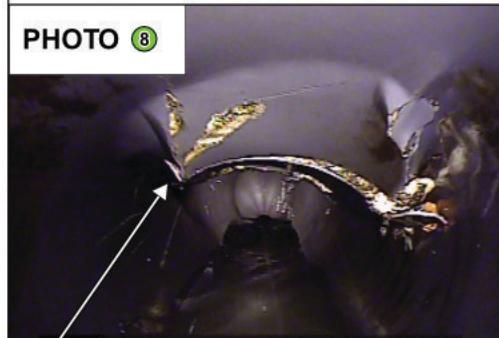
Problem: Severe degradation with exposed aggregate and spalling concrete on 48" trunkline manhole.  
Solution: Install liner or replace manhole.

Newport Section 10



Problem: Heavy Deposit buildup at the joint due to Infiltration and Inflow (I/I) over time.  
Solution: Pipeburst Method.

Newport Section 1



Problem: Defective/Intruding Service that is causing buckling and broken pipe.  
Solution: Pipeburst Method.

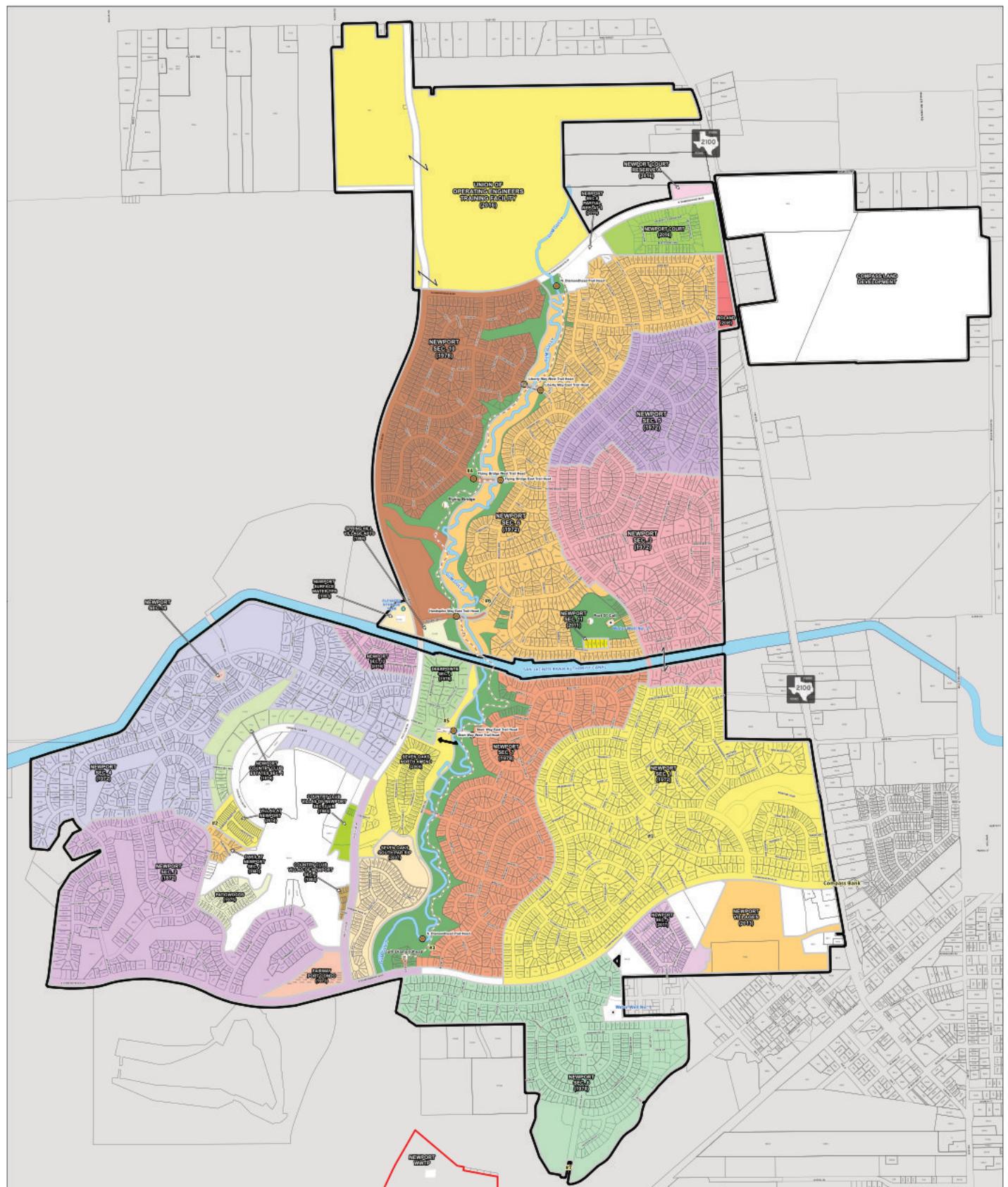
Newport Section 3 and Newport Section 6



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# NEWPORT M.U.D. SUBDIVISIONS



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## LEGEND

|                           |              |                                 |
|---------------------------|--------------|---------------------------------|
| ■ NEWPORT M.U.D. BOUNDARY | ■ PARK       | ■ WASTEWATER TREATMENT PLANT    |
| ■ SUBDIVISIONS            | ● TRAIL HEAD | ■ LIFT STATION                  |
| ■ NEWPORT WWTP            | — PARK TRAIL | ■ SURFACE WATER TREATMENT PLANT |
| ■ HCAD - PARCELS          |              | ■ WATER WELL/WATER PLANT        |
|                           |              | ■ ELEVATED STORAGE TANK         |

# NEWPORT M.U.D.

## SURFACE WATER TREATMENT PLANT & WATER DISTRIBUTION



**Surface Water Treatment Plant** Problem: Surface Water Treatment Plant will not meet peak flows at ultimate buildout.  
Solution: Expand Surface Water Treatment Plant.



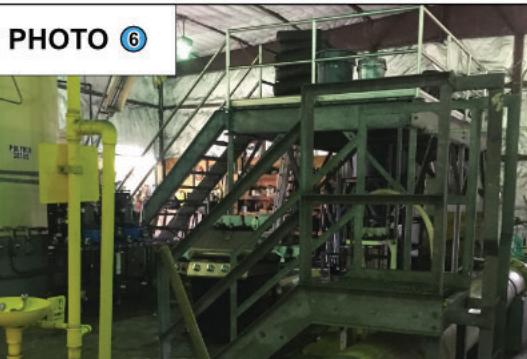
Problem: Tonka Clarifier is not working properly and is now out of service.  
Solution: Repair Clarifier before further damage occurs.

**Surface Water Treatment Plant Clarifier**



Problem: Ground Storage Tank coating is deteriorating on exterior.  
Solution: Recoating of exterior surface.

**Ground Storage Tank**



Problem: The space and access is limited.  
Solution: Improve and maximize space during Plant Expansion.

**Surface Water Treatment Plant**



Problem: 80% of interior coating has deteriorated over time, and metal is beginning to corrode.  
Solution: Replace Hydro Tank due to severity of the conditions.

**Hydro Tank**



Problem: Water Main break due to aging distribution line.  
Solution: Water System Rehabilitation.

**Water Distribution Main Line**



Problem: Water line valves are aging and need to be evaluated.  
Solution: Valve survey and replacement program.

**Water Line Valve**



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# NEWPORT M.U.D.

## SANITARY SEWER EMERGENCY REPAIRS



### Force Main Collapse – Tropical Storm Imelda, Sept. 2019

Problem: Force main collapse near Lift Station No. 6 at 818 Handspike Way.

Solution: Emergency repair of broken force main including temporary pumping.

**Emergency Repair Cost: \$158,000**

**Planned Rehabilitation Cost: \$95,000**

**Percent Cost Increase for Emergency Repair: 40 %**



### WWTP Sinkhole – Tropical Storm Imelda, Sept. 2019

Problem: Large sinkhole and broken pipes.

Solution: Repair broken pipes by joint repair, backfill sinkhole & stabilize.

**Emergency Repair Cost: \$146,000**

**Planned Rehabilitation Cost: \$88,000**

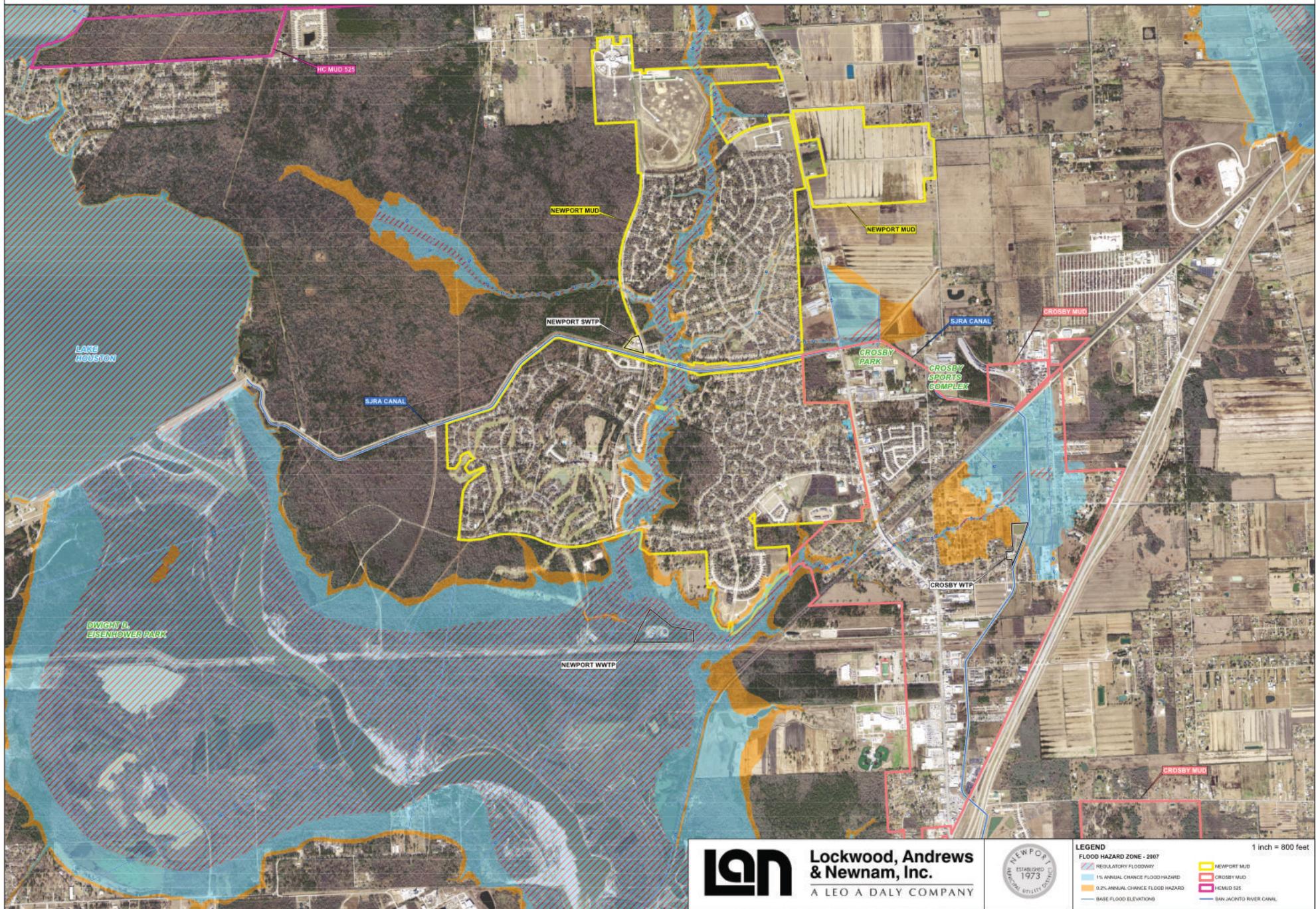
**Percent Cost Increase for Emergency Repair: 40 %**



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# NEWPORT M.U.D. - FLOOD ZONE MAP



**Lockwood, Andrews  
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**FLOOD HAZARD ZONE - 2007**  
ESTABLISHED 1973  
NEWPORT  
MUNICIPAL UTILITY DISTRICT

1 inch = 800 feet