INFRASTRUCTURE WORKSHOP
UTILITY DEPARTMENT
OCTOBER 20, 2015

RENEWAL AND REPLACEMENT (R&R) PROGRAM

ISSUE

- The condition of the Utility's deteriorating Infrastructure is consistent with the nation as a whole.
- Adequate funding is not currently available to address this problem.

DISCUSSION

- Based on a 100-yr. design life, the American Water Works Association recommends 1% of infrastructure should be renewed or replaced annually
- The Utility has significantly more breaks per 100 miles/yr. than the national average
- 52% of the property abutting utility lines is undeveloped and do not contribute toward the cost of maintaining the system
- The Utility seeks direction from the Board for funding this critical R&R program

SLIDE SUMMARY

- **Summary of National Information (slides 4 through 7)**
- **Historical Acquisitions (slides 8 and 9)**
    - 1991 purchased General Development Utility with 44,000 customers and assumed maintenance and management of infrastructure
    - 1999-2003 our utility system acquired 20,000 customer connections and assumed maintenance and management of infrastructure

- **Potable Water System (slides 10 through 21)**
    - The potable infrastructure is composed of 1,427 Miles of mains over a 138 sq. mi service area with 57,234 service connections
    - The Utility has fewer customers per mile than similar sized utilities due to the geographical extent of the system. This has a negative impact on expenditure per customer as these costs are borne solely by rate payers instead of being spread over serviceable lots
    - The Utility averages 480 breaks a year (40 per month) compared to the national average of 11 breaks per 100 miles of main/year. The Utility average is over 3 times the national average
    - 52% of the abutting property to the utility lines is undeveloped and are not contributing toward the cost of maintaining the system
    - Peace River Water Authority has a significant impact on utility rates accounting for 77% of the potable water operating budget
    - $50 million dollars = expense projected over the next twenty years on water main break repairs

- **Sewer System (slides 23 through 32)**
  - The sewer main infrastructure is composed of 906 miles of mains over 44.72 square miles with 34,910 service connections
  - 37 customers per mile of pipe equates to fewer rate payers contributing to operation and maintenance expenses
  - 52% of the abutting property to the utility lines is undeveloped and are not contributing toward the cost of maintaining the system. This has a negative impact on expenditure per customer as these costs are borne solely by rate payers instead of being spread over serviceable lots
  - 77% of existing lift stations require rehabilitation or replacement within the next 10 years

- **Past Pipeline Failures (slides 33 through 39)**
  - Reasons for failures: Aging, Original pipe material installed by acquired utilities not up to today's standards, Physical Stressors-soil loads, point loads (improper bedding), internal and external corrosion

- **What do we do now? (slides 41 through 53)**
  - Analysis of the present system highlights key focus areas to prioritize for R&R.
  - Estimated R&R program costs - $1.58 billion over 100 years
  - Annual R&R need - $15.8 million with only $5.5 million presently being funded
  - Staffing required to meet R&R needs
  - Funding options reviewed

- **Upon Board Conceptual Approval (slide 54)**
  - Develop Detailed R&R Projects Financial Plan
  - Develop Detailed R&R Staffing Plan
  - Define $8 to $10 Million Annual Capital Projects in Initial R&R Target Areas Until $16 Million Annual R&R Funding is Available
  - Develop a Detailed Priority & Scheduling Program for the next 20 Years
  - Create an Annual Living Document Updating R&R Needs