



**AGENDA**  
**CITY WATER COMMISSION**  
**REGULAR MEETING**  
**TUESDAY, OCTOBER 22, 2019, 6:00 P.M.**

The City Water Commission will meet in a regular session on Tuesday, October 22, 2019, at 6:00 p.m. in the City Council Chambers, 9400 Municipal Parkway, Garden Ridge, Texas. This is an open meeting, open to the public, subject to the Open Meetings Law of the State of Texas, and as required by law, notice is hereby posted providing time, place, date, and agenda thereof. The meeting facility is wheelchair accessible and accessible parking spaces are provided. Requests for accommodations or interpretative services must be made to the City Secretary 48 hours prior to this meeting.

**1. Call to Order**

**2. Roll Call**

**3. Pledge of Allegiance**

**4. Citizen Comment Period – limited to 30 minutes total**

**Rules for Citizens' Participation:**

The Commission welcomes citizen participation and comments at all Commission Meetings. The Commission offers citizens the opportunity to address them by signing up to speak prior to the meeting. If you speak, you must follow these guidelines:

a) Respect and courtesy:

1. Direct your comments to the entire Commission, not to an individual member, nor to the audience.
2. Show the Commission the same respect that you would like to be shown.
3. End your speaking at the time allotted below.

b) Speaking:

1. First citizen comment period/business item period
  - 1.1 You are required to sign up to speak and you are limited to one 3-minute period.
2. Second citizen comment period
  - 2.1 You are not required to sign up and you are limited to one 2-minute period.
3. State your name and address before your comments begin.
4. You are only allowed to speak once per topic, unless also speaking during a posted Public Hearing.

*NOTE: The Texas Open Meetings Act permits a member of the public or a member of the governmental body to raise a subject that has not been included in the notice for the meeting. However, any discussion of the subject must be limited to a proposal to place the subject on the agenda for a future meeting and any response to a question posed to the Commission is limited to either a statement of specific factual information or a recitation of existing policy. Tex. Gov't Code § 551.042.*

**5. Business Items**

The following items are for discussion, consideration, and/or action.

a) Approvals

- i. Minutes for August 27, 2019, and September 24, 2019, Water Commission Regular Meeting.

b) Discussions/Reports/Updates

- i. Water Manager Monthly Activity Report.

1. Water Pumping/usage from City wells, Water system infrastructure maintenance, repairs and/or projects, and Water and/or Drought Management (current Watering Stage).

- ii. Items discussed at the October 2, 2019, City Council Regular Meeting
- iii. Water Rate Structure.
  - 1. Discuss and make a possible recommendation to City Council.
- iv. Ordinance No. 210-022018 An Ordinance of the City Council of the City of Garden Ridge adopting board and commission policy and procedures; providing that this Ordinance shall be cumulative of all Ordinances; providing a severability clause; providing a savings clause; and providing an effective date.
  - 1. Interview possible candidates for Water Commission, Place 2 vacancy (term expiring September 30, 2021).
  - 2. Make recommendation to City Council for appointment of commissioner.
  - 3. Discuss and make recommendations related to application of Ordinance provisions to Commission members, if needed.
- c) Future Agenda Items.
  - i. Commissioner's input on agenda items.
  - ii. Reschedule Regular Meeting from Tuesday, November 26, 2019 to Tuesday, November 19, 2019.
  - iii. Reschedule Regular Meeting from Tuesday, December 24, 2019 to Tuesday, December 17, 2019.
  - iv. Announcement of next Water Commission Regular Meetings.

**6. Citizen Comment Period – limited to 20 minutes total**  
**See “Rules for Citizen’s Participation” under Item 4.**

**7. Adjournment**

**AGENDA NOTICES:**

**Decorum Required:**

Any disruptive behavior, including shouting or derogatory statements or comments may be ruled out of order by the Presiding Officer. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

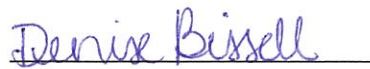
**Action by Commission Authorized:**

The Commission may vote or act upon any item within this Agenda.

**Attendance By Other Elected or Appointed Officials:**

It is anticipated that members of the City Council, other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the City Council, other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.

This is to certify that I, Denise Bissell, posted this Agenda at 11:00 a.m. on October 17, 2019 on the bulletin board located at the entrance to the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas.

  
Denise Bissell  
Utility Clerk



**MINUTES**  
**CITY WATER COMMISSION REGULAR MEETING**  
**TUESDAY, AUGUST 27, 2019, 6:00 P.M.**

**Commissioners Present:**

Chair David Heier  
Vice-Chair Richard Holloway  
Commissioner Keven Harshbarger  
Commissioner Jesse Valdez  
Commissioner Andre Bullard  
Commissioner Joseph Haltaman  
Mayor Larry Thompson, Ex-officio

**Commissioners Absent:** None

**City Staff Present:**

Nancy Cain, City Administrator  
Jacob Parsons, Water Manager  
Kat Balbi, Assistant City Secretary  
Denise Bissell, Utility Clerk

**Other Appointed or Elected Officials in Attendance:** None

**1. Call to Order**

With a quorum of the City Water Commission present, Chair Heier called the regular meeting of the Garden Ridge City Water Commission to order at 6:00p.m. on Tuesday, August 27, 2019, in the City Council Chambers of the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

**2. Roll Call:** See above.

**3. Pledge of Allegiance:** Chair Heier led the Pledge of Allegiance.

**4. Citizen Comment Period:** No one signed up to speak.

**5. Business Items**

**The following items are for discussion, consideration, and/or action.**

**a) Approvals**

**i. Minutes for July 23, 2019, Water Commission Regular Meeting.**

**Motion:** A motion was made by Vice-Chair Holloway, seconded by Commissioner Harshbarger, to approve the Minutes of the July 23, 2019, Water Commission Regular Meeting. The Water Commission voted five (5) for and none (0) opposed. The motion carried unanimously.

**b) Discussions/Reports/Updates**

**i. Water Manager Monthly Activity Report.**

- 1. Water Pumping/usage from City wells, Water system infrastructure maintenance, repairs and/or projects, and Water and/or Drought Management (current Watering Stage).**

Jacob Parsons, Water Manager, reviewed the Water Department Monthly Activity Report. He updated the Water Commission on the Lead and Copper samples and the SCADA system. He reported that Chris Graef passed the Customer Service Inspection test. He answered questions from the Water Commission and discussed rebates.

**ii. Discussion on FLO by Moen device.**

Jacob Parsons, Water Manager, explained the FLO device. Chair Heier requested to keep this item on the agenda.

**iii. Items discussed at the August 7, 2019, City Council Regular Meeting.**

Commissioner Valdez updated the Water Commission on the items discussed at the August 7, 2019, City Council Regular Meeting, that pertain to the Water Commission.

**iv. Discussion on Water Pressure in the City and Pressure Releasing Valves.**

Commissioner Haltaman discussed how residents have Pressure Releasing Valves (PRV) to regulate pressure in their homes. He questioned if the water pressure could be reduced City wide. Jacob Parsons, Water Manager, discussed the pressure for the City and the requirements by the International Plumbing Code. Chair Heier discussed an educational article in the Grapevine or inclusion in the Water Booklet concerning water pressure and PRV's.

**v. Discussion on Water Meter Failures in the City**

Jacob Parsons, Water Manager, discussed his meeting with Sensus representatives regarding meter failures and replacements with new meters.

**vi. Ordinance 61-112017 An Ordinance establishing the drought management plan for the City of Garden Ridge; providing definitions, establishing trigger points for Stages 1 through 5, restricting the use of water upon implementation of specific stages of said plan; establishing water surcharge rates for Stages 3 through 5 of said plan; providing a variance procedure; providing a penalty clause, providing for severability and providing an effective date and amending Ordinance No. 61-012014 Adopted January 9, 2014.**

**1. Discuss and make a possible recommendation to City Council to amend Section 4.04 Water Rate Surcharge to release restricted funds.**

The Water Commission reviewed Section 4.04.

**Motion:** A motion was made by Vice-Chair Holloway, seconded by Commissioner Bullard, to recommend to the City Council the approval of amending Section 4.04 to release restricted funds. The Water Commission voted five (5) for and none (0) opposed. The motion carried unanimously.

**vii. Discuss electronic water billing enhancements.**

Kat Balbi, Assistant City Secretary, reported on adding graphs to the water bills and the fees Tyler Technologies will charge. Commissioner Haltaman requested more information to be provided. Chair Heier requested this item remain on the agenda. Nancy Cain, City Administrator, discussed the benefit of this enhancement.

**Motion:** A motion was made by Commissioner Bullard, seconded by Commissioner Haltaman, to table this agenda item until the next meeting. The Water Commission voted five (5) for and none (0) opposed. The motion carried unanimously.

**viii. Water Commission activities and projects.**

Commissioner Valdez updated the Commission on the City's water infrastructure. Commissioner Harshbarger discussed the SCADA System upgrades. Commissioner Bullard stated the Appendix F Leak Adjustment form was completed, and the Water Information Booklet is still in progress and will give to staff next month.

**1. Discuss and make possible recommendations on future meetings or direction regarding Water Commission activities and projects.**

Chair Heier stated there was no action.

**ix. Ordinance No. 210-022018 An Ordinance of the City Council of the City of Garden Ridge adopting board and commission policy and procedures; providing that this Ordinance shall be cumulative of all Ordinances; providing a severability clause; providing a savings clause; and providing an effective date.**

**1. Discuss expiring terms (September 30, 2019) of Commissioner Heier, Commissioner Holloway, and Commissioner Harshbarger.**

Vice-Chair Holloway stated his intentions to retire from the Commission at end of his term.

**2. Make recommendation to City Council for consideration of reappointment.**

**Motion:** A motion was made by Vice-Chair Holloway, seconded by Commissioner Valdez, for re-appointment of Commissioner Harshbarger to serve another term on the Water Commission with term expiring September 30, 2021. The Commission voted five (5) for and none (0) opposed. The motion carried unanimously.

**3. Interview possible candidates for Water Commission, Place 5 vacancy (term expiring Sept 30, 2021).**

The Commission interviewed Jim Mueller for the vacancy with term expiring September 30, 2021.

**4. Make recommendation to City Council for appointment of Commissioner.**

**Motion:** A motion was made by Chair Heier, seconded by Commissioner Valdez, to recommend to City Council the appointment of Jim Mueller to the Water Commission Place 5 with term expiring September 30, 2021. The Commission voted five (5) for and none (0) opposed. The motion carried unanimously.

**5. Discuss and make recommendations related to application of Ordinance provisions to Commission members, if needed.**

Chair Heier stated there was nothing to discuss.

**x. Education/Training Sessions**

**1. Discuss and provide directions on future education or training sessions.**

Jacob Parsons, Water Manager, discussed the recent TCEQ conference he attended. He reported the Environmental Protection Agency is requiring an emergency action plan for all municipalities to be completed by 2021 but the City's goal is compliance by 2020.

**xi. Future Agenda Items**

**1. Commissioner's input on agenda items.**

Chair Heier stated there was nothing more to add.

**2. Announce date, time, and location for next regular meeting (Tuesday, September 24, 2019, at 6:00 p.m. at City Hall – City Council Chambers).**

Chair Heier announced the next Water Commission Regular Meeting will be held on Tuesday, September 24, 2019, at 6:00 p.m. at City Hall – City Council Chambers.

**xii. Citizen Comment Period – limited to 20 minutes total**

No one wished to speak.

**xiii. Adjournment**

**Motion:** A motion was made by Vice-Chair Holloway, seconded by Commissioner Valdez, to adjourn. The Commission voted five (5) for and none (0) opposed. The motion carried unanimously. There being no further business, the Tuesday, August 27, 2019, Water Commission Regular Meeting was adjourned at 7:56 p.m. by Chair Heier.

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Jesse Valdez  
Chair

ATTEST:

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Denise Bissell  
Utility Clerk



# City of Garden Ridge

*"A way of life, not just a place to live"*

## MINUTES CITY WATER COMMISSION REGULAR MEETING TUESDAY, SEPTEMBER 24, 2019, 6:00 P.M.

### **Commissioners Present:**

Chair David Heier  
Commissioner Keven Harshbarger  
Commissioner Jesse Valdez  
Commissioner Joseph Haltaman  
Mayor Larry Thompson, Ex-officio

### **Commissioners Absent:**

Vice-Chair Richard Holloway (Voluntary Announced Absence)  
Commissioner Andre Bullard (Voluntary Announced Absence)

### **City Staff Present:**

Nancy Cain, City Administrator  
Jacob Parsons, Water Manager  
Kat Balbi, Assistant City Secretary  
Denise Bissell, Utility Clerk

**Other Appointed or Elected Officials in Attendance:** None.

### **1. Call to Order**

With a quorum of the City Water Commission present, Chair Heier called the regular meeting of the Garden Ridge City Water Commission to order at 6:00 p.m. on Tuesday, September 24, 2019, in the City Council Chambers of the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

**2. Roll Call:** See above.

**3. Pledge of Allegiance:** Chair Heier led the Pledge of Allegiance.

### **4. Citizen Comment Period – limited to 30 minutes total**

Shelby Trial, 21657 Forest Waters Circle, thanked Chair Heier for his service on the Water Commission.

Rick Cross, 20637 Wahl Lane, thanked the Water Commission for their service and requested the Water Commission consider special water rates for residents putting in new sod/landscaping.

### **5. Business Items**

**The following items are for discussion, consideration, and/or action.**

#### **a) Education/Training Sessions. (Limited to 5 minutes)**

##### **1. Receive Watersaver Landscape Design” proposal from Patricia Hartley, Coordinator for Gardening Volunteers of South Texas.**

Patricia Hartley explained the classes offered by the Gardening Volunteers of South Texas and would like to hold a class for the residents of Garden Ridge.

#### **b) Discussions/Reports/Updates**

##### **i. Water Manager Monthly Activity Report.**

##### **1. Water Pumping/usage from City wells, Water system infrastructure maintenance, repairs and/or projects, and Water and/or Drought Management (current Watering Stage).**

Jacob Parsons, Water Manager, reviewed the Water Department Monthly Activity Report. He stated the Lead and Copper samples were turned in and the City is waiting for the results. He stated several water meters were tested with no discrepancies and all results were in favor of the customer. He also stated the Water Department had completed 108 laptop reads, analyzed 86 of them, and found 23 potential leaks.

**ii. Items discussed at the September 4, 2019, City Council Regular Meeting and September 10, 2019 City Council Special Meeting.**

Commissioner Valdez stated the City Council approved the reappointment of Commissioner Harshbarger, the appointment of Commissioner Mueller, and the amendment to Ordinance 61. Chair Heier reviewed the changes to the water rates from the Special City Council Meeting.

**iii. Discussion on IPerl Meters.**

**1. Receive IPerl Meters Presentation from Sensus Representatives: Scott Kohan and Craig Collins, Territory Managers; David Overfield, Manager of Technical Services.**

David Overfield, Manager of Technical Services of Sensus, presented information regarding IPerl meters and answered questions from the Water Commission.

**iv. Discussion Water Rate Structure.**

**1. Discuss and make possible recommendation to City Council.**

Chair Heier stated the Water Commission should review the water rates and make a recommendation by November. He explained his thoughts with the rate structure and the Commission should compare it to the rate structure prepared by Water Markets, LLC. Commissioner Harshbarger stated the rate increase was still too high and the Water Commission should review with more detail the Water Rate Study that was conducted.

**Motion:** A motion was made by Chair Heier, seconded by Commissioner Haltaman, to review the proposal of the water rates for another month. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously.

**Motion:** A motion was made by Commissioner Harshbarger, seconded by Commissioner Haltaman, to create a Water Rate Committee with Commissioner Valdez and Commissioner Harshbarger. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously.

**v. Discussion on electronic billing enhancements.**

Kat Balbi, Assistant City Secretary, presented a sample bill with the proposed water usage graph enhancements and explained the annual fee would break down to .17 cents per customer.

Chair Heier recommended providing an explanation to customers on the City's website.

**Motion:** A motion was made by Commissioner Valdez, seconded by Commissioner Haltaman, to implement the purchase of the electronic billing enhancements. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously.

**vi. Ordinance No. 210-022018 An Ordinance of the City Council of the City of Garden Ridge adopting board and commission policy and procedures; providing that this Ordinance shall be cumulative of all Ordinances; providing a severability clause; providing a savings clause; and providing an effective date.**

**1. Receive recommendations and consideration of appointment of Water Commission Chair and Vice-Chair for a one-year term effective October 1, 2019.**

Chair Heier stated Vice-Chair Holloway and himself would no longer be on the Commission.

**Motion:** A motion was made by Commissioner Haltaman, seconded by Commissioner Valdez, to appoint Commissioner Harshbarger as Vice-Chair for a one-year term effective October 1, 2019. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously.

**Motion:** A motion was made by Commissioner Harshbarger, seconded by Commissioner Haltaman, to appoint Commissioner Valdez as Chair for a one-year term effective October 1, 2019. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously.

**2. Discuss and make recommendations related to application of Ordinance provisions to Commission members, if needed.**

Chair Heier stated there was no update.

**c) Future Agenda Items.**

**i. Commissioner's input on agenda items.**

Commissioner Valdez requested an educational class on water conservation.

Commissioner Harshbarger requested consideration for rate adjustments for landscaping installation.

Chair Heier requested the drought management plan be reviewed.

**ii. Announce date, time, and location for next regular meeting (Tuesday, October 22 2019, at 6:00 p.m. at City Hall – City Council Chambers).**

Chair Heier announced the next Water Commission Regular Meeting will be held on Tuesday, October 22, 2019, at 6:00 p.m. at City Hall – City Council Chambers.

**6. Citizen Comment Period – limited to 20 minutes total**

Sharon Stripling, 21729 Forest Waters Circle, spoke regarding the water rate structure.

Rick Cross, 20637 Wahl Lane, spoke regarding the water rate structure and water usage.

Stephen Demory, 9497 Cinchona Trail, spoke regarding the water rate structure, water usage, and the meters.

**7. Adjournment**

**Motion:** A motion was made by Commissioner Valdez, seconded by Commissioner Haltaman, to adjourn. The Commission voted three (3) for and none (0) opposed. The motion carried unanimously. There being no further business, the Tuesday, September 24, 2019, Water Commission Regular Meeting was adjourned at 7:28 p.m. by Chair Heier.

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Jesse Valdez  
Chair

ATTEST:

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Kat Balbi  
Assistant City Secretary

9/24/2019



# Garden Ridge

DAVID OVERFIELD  
MANAGER TECHNICAL SOLUTIONS

# iPERL



# iPERL

- Accurate
  - Ultra low flow measurement
  - Perpetual accuracy
- Intelligent
  - AMI connectivity
  - Data log
  - Diagnostic alarms
- Efficient
  - Reduced head loss



# iPERL Technology

- Faraday's law
  - Measure the signal produced when water flows through a magnetic field
  - Signal is dependent on water speed
  - Multiply the flow rate by time to determine volume

Electromagnetic Measuring Principle:

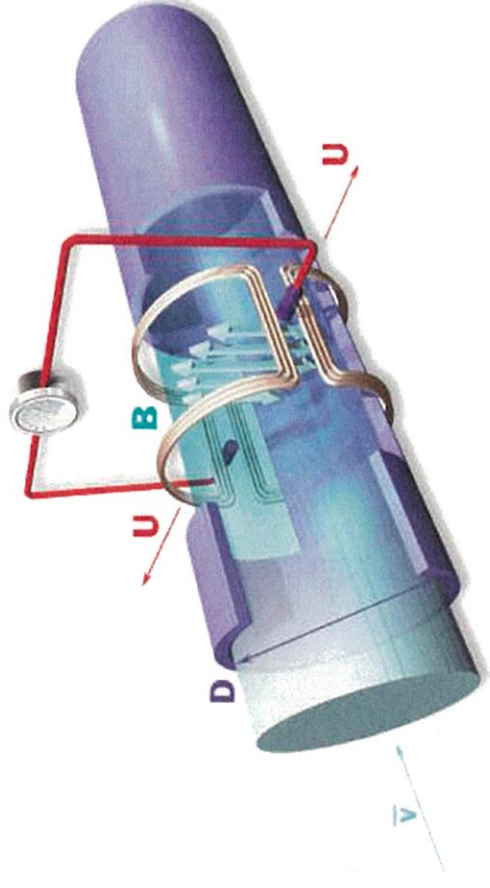
$$U_i \text{ (induced signal voltage)} = v \cdot k \cdot B \cdot D$$

$v$  = mean flow velocity

$k$  = constant factor correcting for geometry

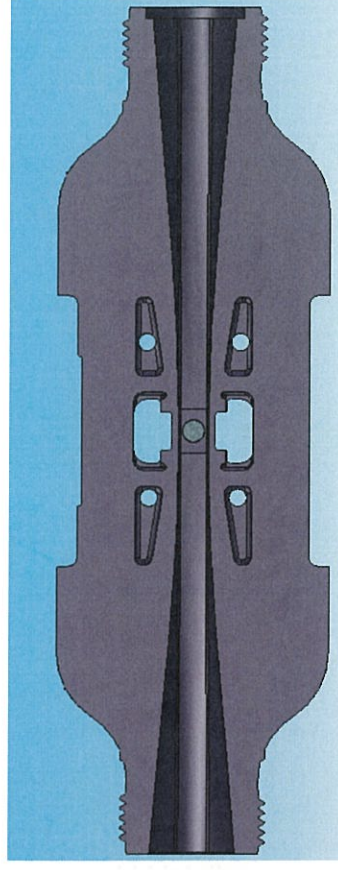
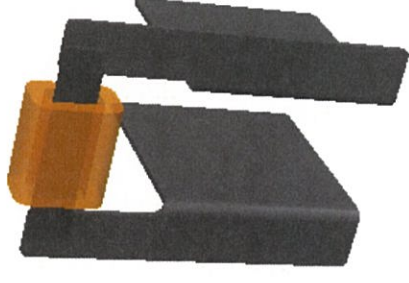
$B$  = magnetic field strength

$D$  = inner diameter



# iPERL Technology

- Remnant Technology - efficient, predictable, and perpetual
  - Low power consumption
  - Extraordinary accuracy
- Rectangular cross-section for measurement accuracy
- Robust design of Glass infused polyphenylene sulfide.



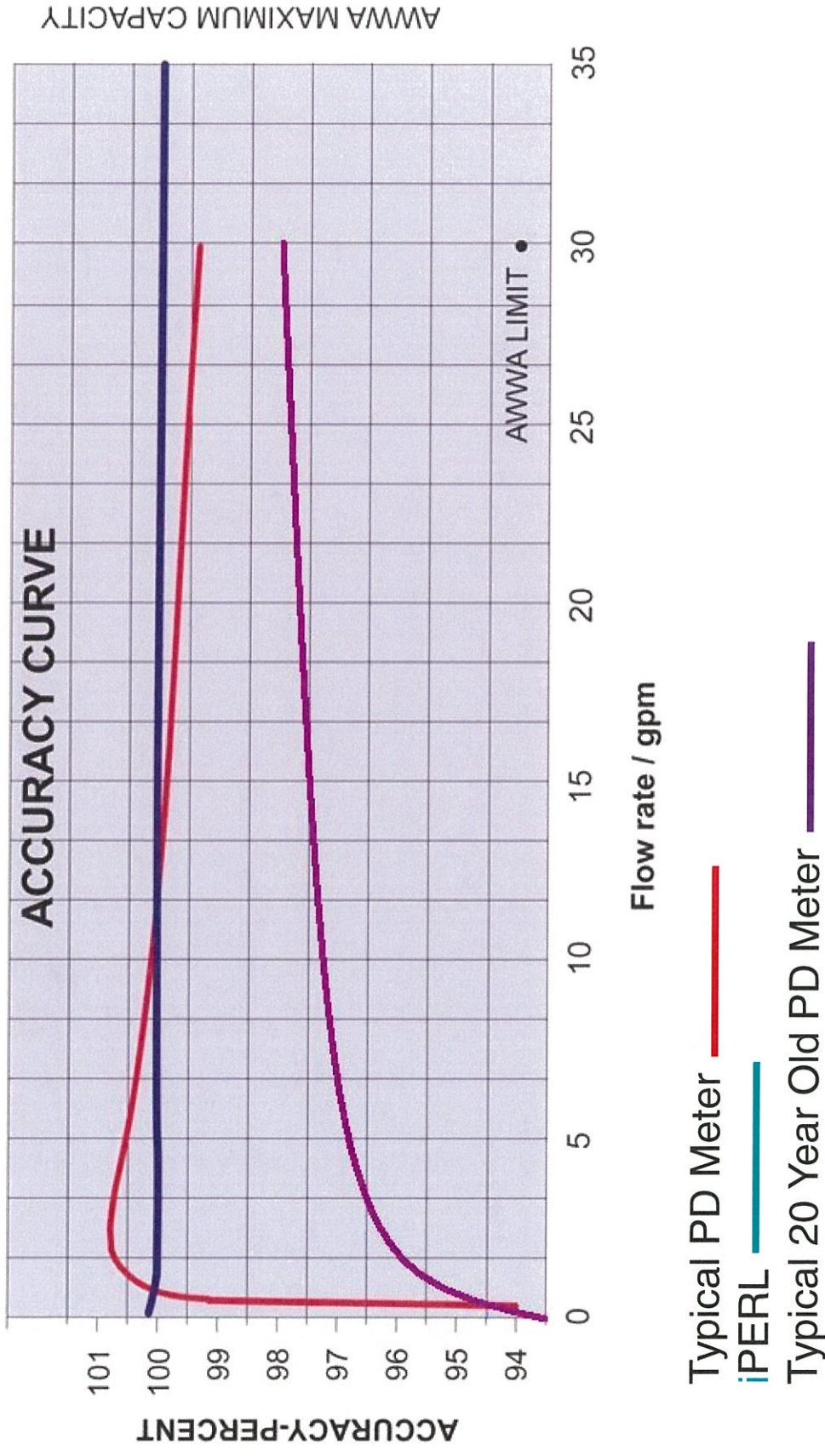
# iPERL Specifications

- Under Normal Conditions the iPERL is calibrated for flow rates as low as:

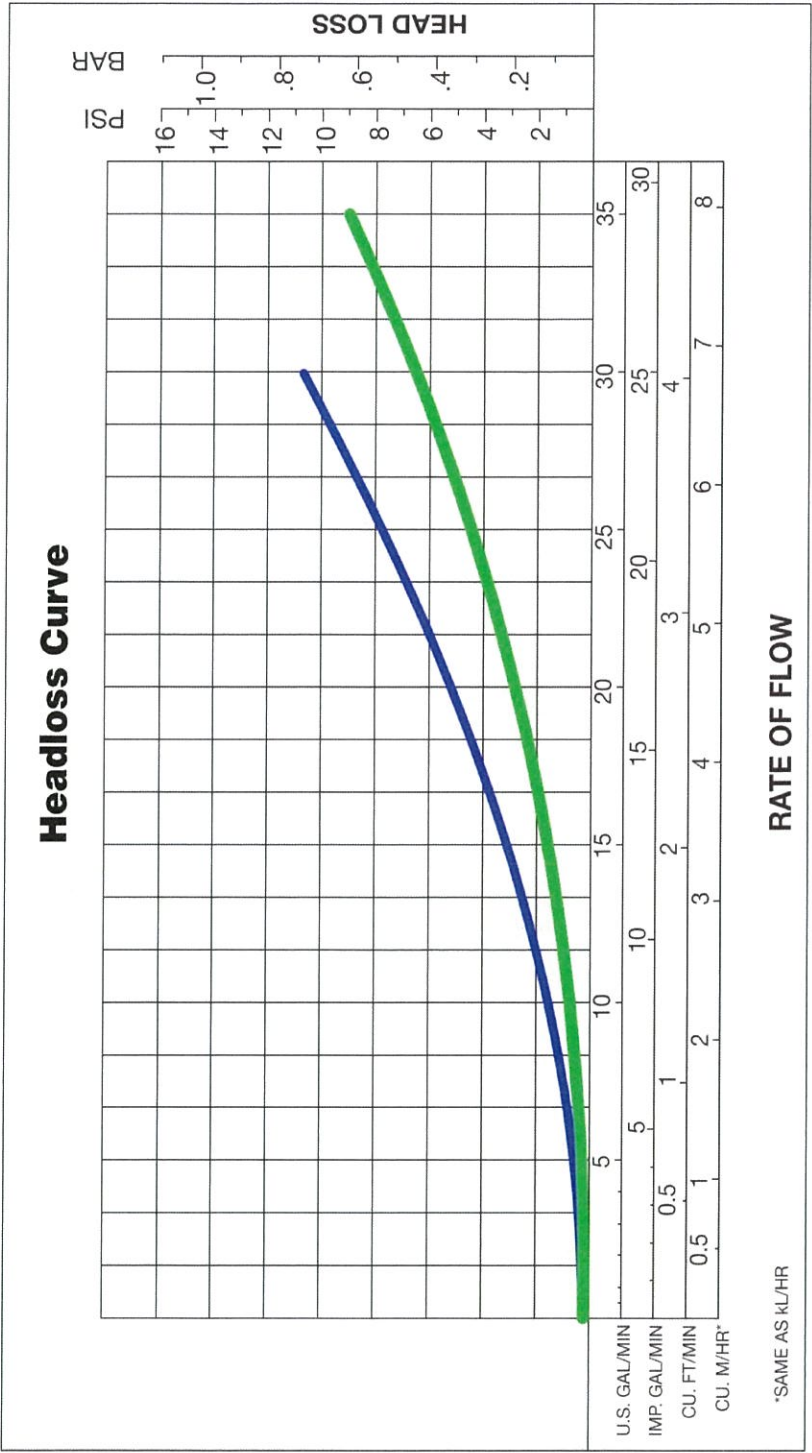
| Sizes        | Low Flow Registration (GPM) | Low Flow Range (GPM) (+/- 3%) | Normal Operating Range (GPM) (+/- 1.5%) | Lay Lengths |
|--------------|-----------------------------|-------------------------------|-----------------------------------------|-------------|
| 5/8"         | 0.03                        | >0.11<0.18                    | 0.18 - 25                               | 7-1/2"      |
| 5/8" x 3/4"  | 0.03                        | >0.11<0.18                    | 0.18 - 35                               | 7-1/2"      |
| 3/4" short   | 0.03                        | >0.11<0.18                    | 0.18 - 35                               | 7-1/2"      |
| 3/4" regular | 0.03                        | >0.11<0.18                    | 0.18 - 35                               | 9"          |
| 1"           | 0.11                        | >0.3<0.4                      | 0.4 – 55                                | 10-3/4"     |

- Exceeds AWWA C-700 and C-710 standards for accuracy and pressure loss.
- Complies with NSF 61 Annex F/G, NSF 372

# iPERL Accuracy Curve



# iPERL Head Loss



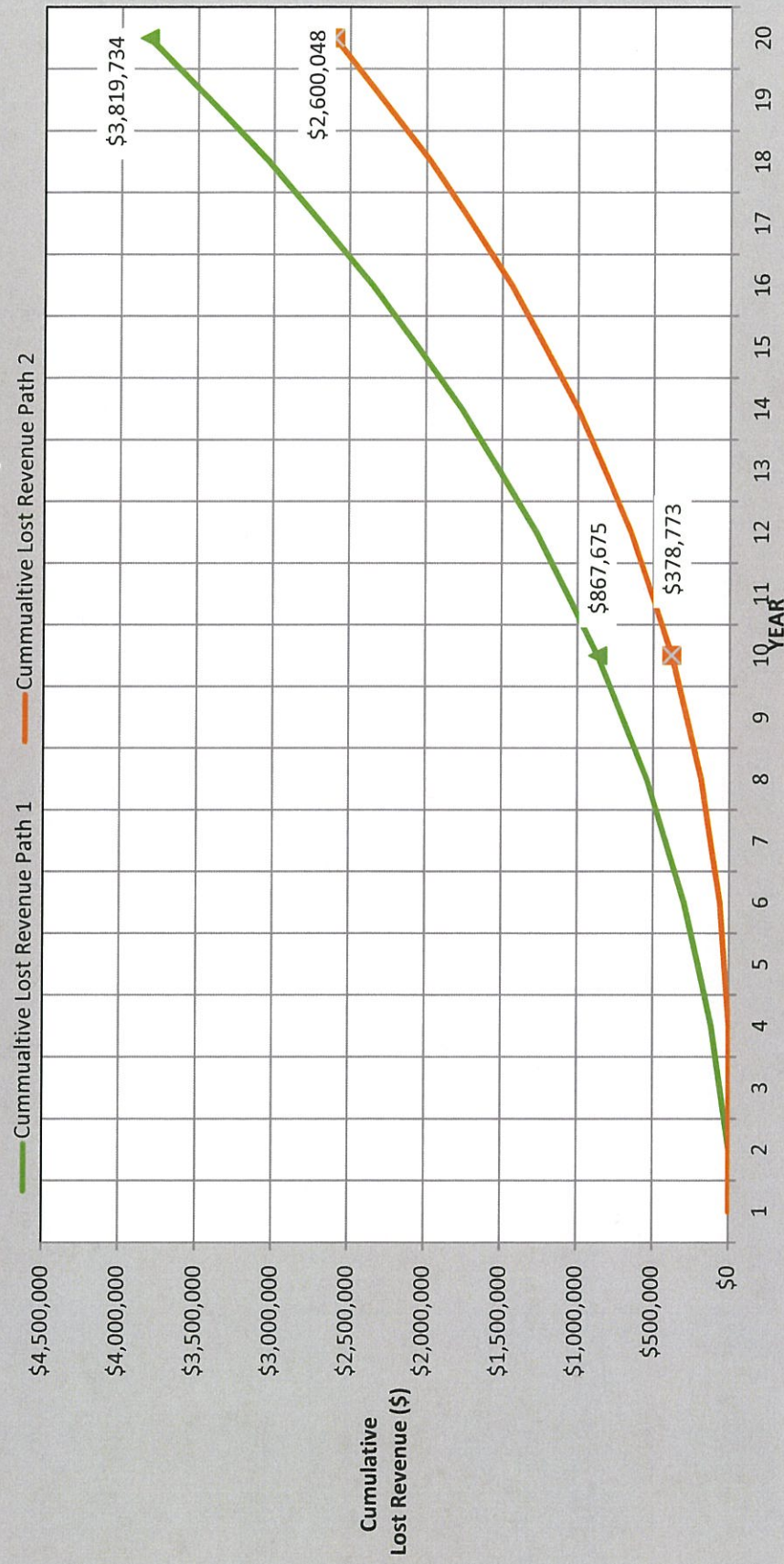
Typical PD Meter —  
iPERL —

# iPERL Financial Benefit

- Mechanical Meters wear out
  - Positive Displacement → 50-57 rotations/gallon
    - 10 years usage at 5,000 gallons/month = > 34M cycles
  - AWWA recommends a systematic testing program
- Slow meters lose money
  - Average US household uses 200-600 gallons/day.
  - 10% loss in accuracy = 20-60 gallons/day/house
  - At \$3.00/1K gallons → \$22-\$66 per house/year is lost

# Lost Revenue

## Cumulative Lost Water Revenue Due to Accuracy Loss



| Loss Pattern |                                    |
|--------------|------------------------------------|
| 1            | 1% per 2 years                     |
| 2            | 1% per 2 years starting at 5 years |

# iPERL Additional Revenue Benefits

- **Leak Alarms**
  - Consumer protection
  - Reduction of waste
  - Reduced load on infrastructure
- **20 Year Life**
  - No parts or service at 5, 10, or 15 year intervals
- **Magnetic Tampering Alarm**
  - Reduce Tampering/Capture Revenue
  - Improve Troubleshooting

# iPERL Operational Benefits

- Empty Pipe alarms to ensure water availability
  - Reduce Tampering
  - Improve Troubleshooting
- Diagnostics of consumption
  - Flow profiles with maximum consumptions and usage spikes.
  - Consumer data for dispute resolution
- Lifetime alarms
  - Proactive notification

# iPERL Alarms

- Leak Detection
- Reverse Flow
- Empty Pipe
- Magnetic Tampering
- Lifetime alarms
  - 6 month
  - 1 month
  - Battery failure

# iPERL Alarm History and Data Log

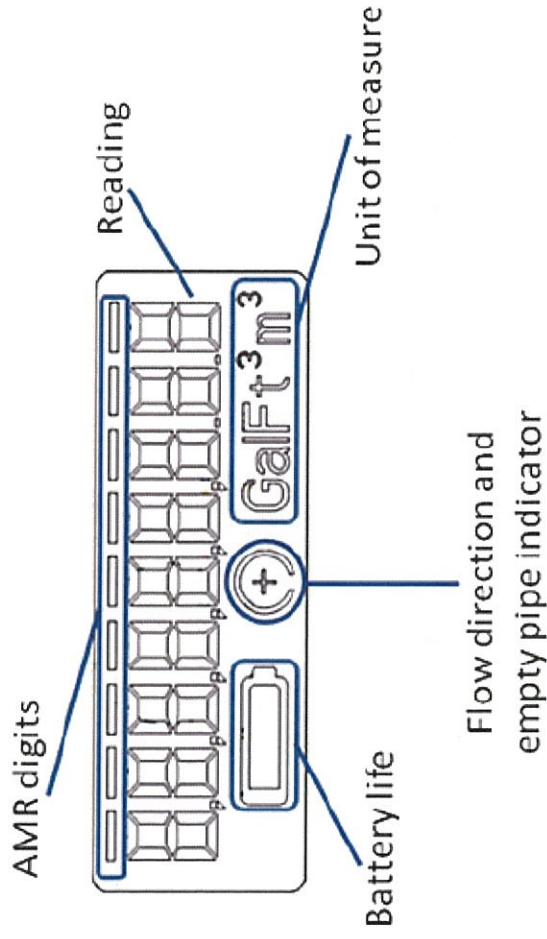
- Alarm History
  - Time of event
  - State of device when event occurred
- Data log
  - Interval data can be stored (15 minutes to 24 hours)
    - Peak flow
    - Volume
  - Capacity for 1,080 data points
    - 11 days of 15 minute intervals
    - 45 days of hourly intervals
    - ~3 years of daily intervals

# iPERL FlexNet AMI

- SmartPoint polls meter hourly
  - Alarm detected → SmartPoint immediately transmits 3 alarm messages spaced 8 seconds apart.
- SmartPoint transmits to Base Station every 4 hours
  - The message indicates that an alarm condition exists.
- iPERL alarm persistence is set to 90 days (user configurable).
  - SmartPoint weekly transmits the status of all alarms (over the persistence timeframe) until it is reset.

# iPERL Register

## REGISTER DISPLAY



**AMR Digit Bar (4 to 8 Digits):** The AMR digit bar shows which digits will be reported when the meter is read through the communications interface.

**Battery Icon:** The Battery Icon will turn on when the battery is low or the meter is near the end of life.

### Flow Icon:

| Flow Condition   | Display           |
|------------------|-------------------|
| Positive Flow    | Circle with +     |
| Negative Flow    | Circle with -     |
| Low Flow Cut off | No icon displayed |
| Empty Pipe       | Empty Circle      |

**Unit of Measure:** Gallon (GAL), Cubit Feet (FT<sup>3</sup>), Cubic Meter (M<sup>3</sup>)

# iPERL Programmable Settings

| Parameter                  | Function                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer ID                | <ul style="list-style-type: none"> <li>Identifies the particular system to the data retrieval system.</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| Programmable Text          | <ul style="list-style-type: none"> <li>A user defined description or identification of the device.</li> </ul>                                                                                                                                                                                                                                                                                                                          |
| Reading Digits             | <ul style="list-style-type: none"> <li>Number of digits reported via the AMR.</li> <li>iPERL can display and report up to 9 digits.</li> </ul>                                                                                                                                                                                                                                                                                         |
| Units of Measure           | <ul style="list-style-type: none"> <li>Units of measure in which to display flow data.</li> <li>Units of measure in conjunction with the size of the system defined where the decimal place appears on the display.</li> </ul>                                                                                                                                                                                                         |
| Reading Mode               | <ul style="list-style-type: none"> <li>With a normal reading string → the data stream from the register contains the meter reading and meter ID only.</li> <li>With an extended reading string → the data stream includes information such as the manufacturer fields and/or meter register specific data.</li> <li>With the fixed reading string → the data stream contains the meter reading and the 8 digit customer ID.</li> </ul> |
| Alarm Save Duration (Days) | <ul style="list-style-type: none"> <li>Period of time an error is retained in the system between reads.</li> </ul>                                                                                                                                                                                                                                                                                                                     |
| Leak Duration (Hours)      | <ul style="list-style-type: none"> <li>Amount of time that defines a detectable leak.</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| Data log Interval          | <ul style="list-style-type: none"> <li>Interval to collect flow data in the data log interval entry.</li> <li>A valid value is either 15 minutes or between 1-24 hours.</li> </ul>                                                                                                                                                                                                                                                     |
| History Mask               | <ul style="list-style-type: none"> <li>Events that can be recorded by the system.</li> <li>Options → reboot, TouchRead, radio read, alarm, configuration change and status change.</li> </ul>                                                                                                                                                                                                                                          |
| Alarm Mask                 | <ul style="list-style-type: none"> <li>Types of alarms that will be recorded by the system.</li> <li>Options → reboot, low battery, very low battery, configuration error, empty pipe, magnetic tamper, reverse flow, leak, EMF range, low battery volts, high temperature, flow field, high current, glide slope, ADC failure, and TouchRead failure.</li> </ul>                                                                      |

# iPERL Strength Tests

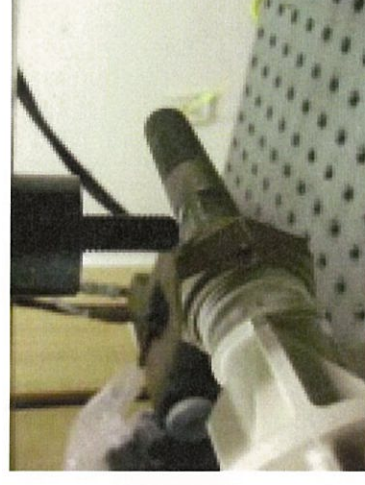
|                      | Bronze Maincase |                         |         | Composite Material |                     |
|----------------------|-----------------|-------------------------|---------|--------------------|---------------------|
|                      | 81-Metal        | Low-lead Envirobrass II | Bialloy | iPERL flowtube     | accuSTREAM maincase |
| Yield strength (psi) | 13,000          | 17,000                  | 18,000  | 20,300             | 31,900              |
| Elongation (%)       | 1               | 6                       | 30      | 2                  | 2.5                 |

Figure 1: Yield Strength and Elongation Comparisons

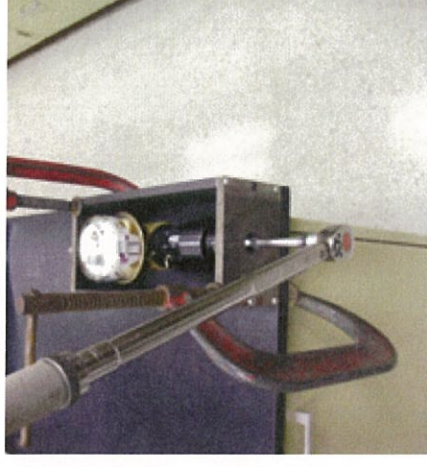
## Tensile



## Bending Moment



## Torsion



# iPERL NSF Certification

## NSF/ANSI 61 Drinking Water System Components - Health Effects

NOTE: Unless otherwise indicated for Materials, Certification is only for the Water Contact Material shown in the Listing. Click here for a list of Abbreviations used in these Listings.

### Sensus USA Inc.

8601 Six Forks Road  
Suite 300  
Raleigh, NC 27615  
United States  
724-439-7700  
[Visit this company's website](http://www.sensus.com)

Facility : Aguascalientes, Mexico

[www.nsf.org](http://www.nsf.org)

#### Mechanical Devices

| Trade Designation             | Size | Water Contact Temp | Water Contact Material |
|-------------------------------|------|--------------------|------------------------|
| Water Meters [1] [G]<br>iPERL | [1]  | CLD 23             | MLTPL                  |

[1] Certified sizes are 5/8", 3/4", 3/4" long, and 1".

[1] Certified sizes are 5/8", 3/4", 3/4" long, and 1".

[G] Product complies with NSF/ANSI 61 Annex G, NSF/ANSI 372 and conforms with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act due to take effect January 2014.

# iPERL Warranty

- Accuracy
  - Register water flow are warranted to perform to the accuracy levels set forth in the iPERL Water Management System Data Sheet, for twenty (20) years from the date of Sensus shipment.
- Battery/Components
  - At no cost for the first ten (15) years from the date of Sensus shipment, and for the remaining ten (15) years, at a prorated percentage
- Complete terms available in G-500 Sensus Warranty Bulletin.

# iPERL Recycling

- Sensus has identified recycling partners for the iPERL and smart points
- Accordance with all state and federal laws and regulations
- Zero Landfill Policy for metals, glass, plastic, circuit boards and packing
- Batteries and other components to be disposed at an USEPA approved recycling facility.
- Complete with certificate of Recycling.



# Fire Service iPERL

- **Sizes**
  - 3/4" Regular, 3/4" Long, and 1"
- **Difference from standard iPERL**
  - Approved by Underwriters Laboratories Inc.. (UL) to Subject 327B
  - Red upper housing and lid
  - UL logo on lid
- **Different Literature**
  - Datasheet
  - Specification sheet



# UL Tests

- Leakage and Hydrostatic Testing
  - Two times rated pressure for 1 minute
- Hydraulic Friction Loss following 1 hour Endurance Testing
  - Friction loss less than 7 psi while flowing water at 15 ft./s (4.6 m/s)
- Calibration prior and following to 24 hour Endurance Testing
  - Flow error not to exceed  $\pm 1.5$  percent of true flow through the meter
- 24 hour Endurance Testing
  - Continuous maximum flow rate for 24 hours
- Calibration following Water Exposure
  - Immersion for 90 days in tap water at 87°C (188°F)
- Calibration following Air Exposure
  - Air-oven aging for 90 days at 100°C (212°F)

# iPERL Benefits

- Improves operational efficiency and customer service
- Reduces non-revenue water, measuring flow rates as low as .1-.3 gpm.
- Reduces maintenance and cost
- Installs horizontally, vertically or diagonally
- Prevents removal and tampering attempts to obtain free water
- Detects system leaks
- Allows remote management, monitoring and diagnosis
- Collects and logs system and customer data
- Preserves energy and optimizes power

## Meter Accuracy Certificate

This is to certify that Sensus iPerl 1-inch cold water meters were tested at the Utah Water Research Laboratory from April 23, 2019 to April 24, 2019, by calibrator Adam Pack, using a gravimetric test bench. The laboratory weight tanks are traceable to the National Institute of Standards and Technology (NIST) by weight. Test procedures are in accordance with AWWA C715 Type I testing requirements. The 1-inch meters listed below were tested at 55 gpm, 15 gpm, 4 gpm, 0.75 gpm, 0.40 gpm, and 0.30 gpm.

### Meter Accuracy

| Meter Type | Serial Number (#) | 55 gpm  | 15 gpm  | 4 gpm   | 0.75 gpm | 0.40 gpm | 0.30 gpm |
|------------|-------------------|---------|---------|---------|----------|----------|----------|
| iPerl      | 86637289          | 99.97%  | 100.04% | 99.94%  | 100.23%  | 100.30%  | 99.46%   |
| iPerl      | 86637290          | 100.38% | 100.27% | 100.53% | 100.43%  | 100.30%  | 100.66%  |
| iPerl      | 86637291          | 100.05% | 99.93%  | 99.94%  | 100.03%  | 99.84%   | 99.56%   |
| iPerl      | 86637292          | 100.61% | 100.32% | 100.83% | 100.52%  | 100.48%  | 100.26%  |
| iPerl      | 86637293          | 100.11% | 99.94%  | 100.43% | 100.13%  | 100.39%  | 99.86%   |
| iPerl      | 86637294          | 100.60% | 100.38% | 100.53% | 100.92%  | 101.03%  | 100.56%  |
| iPerl      | 86637295          | 100.79% | 100.43% | 100.63% | 100.72%  | 100.75%  | 100.56%  |
| iPerl      | 86637296          | 100.31% | 99.93%  | 100.34% | 100.52%  | 100.11%  | 100.26%  |
| iPerl      | 86637297          | 100.61% | 100.12% | 100.53% | 100.52%  | 100.39%  | 101.16%  |
| iPerl      | 86637298          | 99.87%  | 99.51%  | 99.94%  | 99.53%   | 99.65%   | 99.46%   |



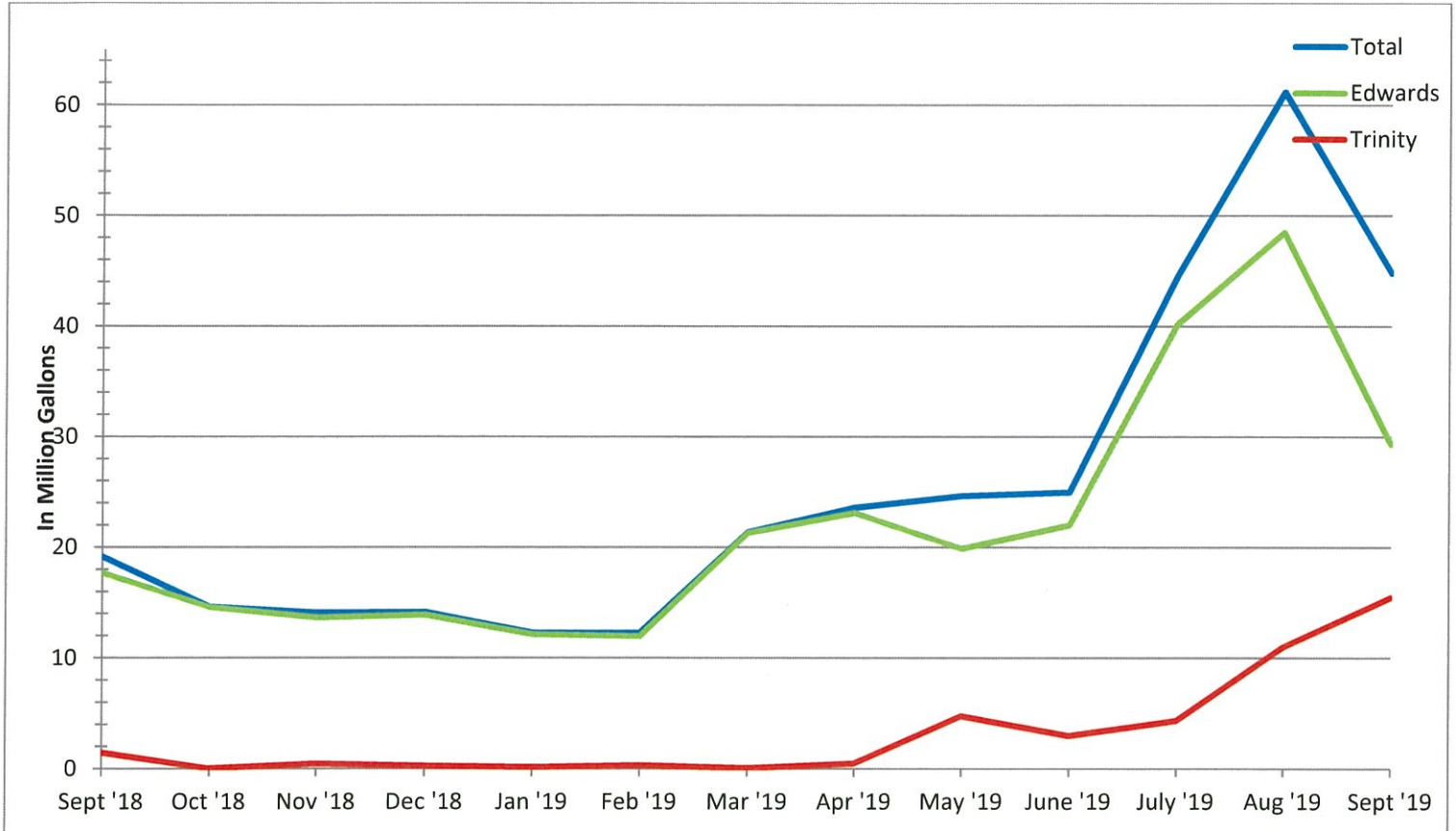
Steven L. Barfuss, Research Professor  
Utah Water Research Laboratory  
1600 Canyon Road  
Logan, Utah 84321



## Water Department Report

As of September 30, 2019

### City of Garden Ridge Well Usage

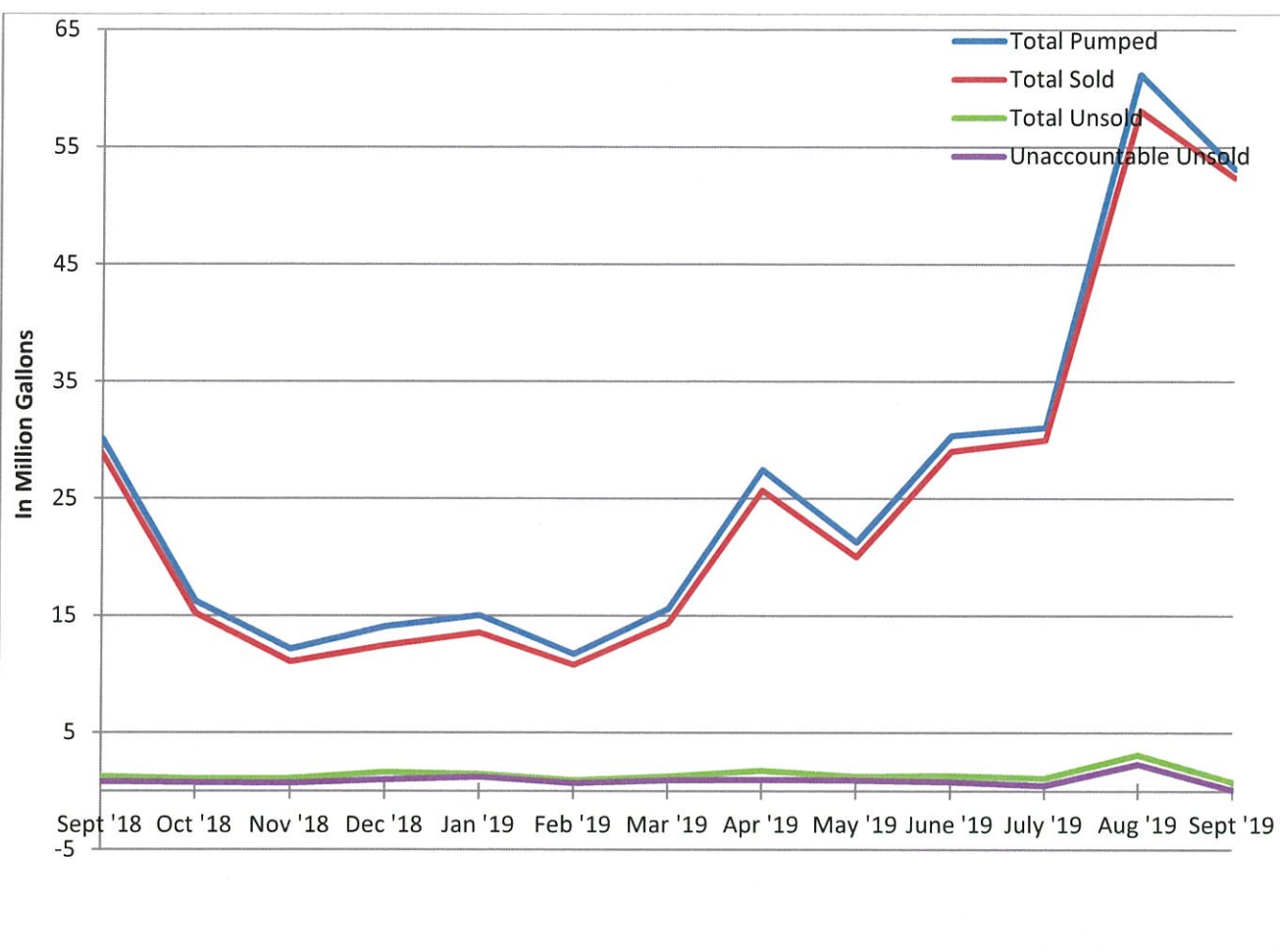


|                           | Month: | Year:  | Available: | Stage: |
|---------------------------|--------|--------|------------|--------|
| Edwards Well Usage AC/FT: | 89.98  | 702.04 | 10.15      | 0      |
| Trinity Well Usage AC/FT: | 47.48  | 119.92 | N/A        | - 0%   |

### Water Quality

|                         |    |   |    |   |
|-------------------------|----|---|----|---|
| Bacteriological:        | 6  | 0 | 6  | 0 |
| Raw:                    | 4  | 0 | 4  | 0 |
| Chlorine Residual Test: | 30 | 0 | 30 | 0 |
|                         |    |   |    |   |

## 2018 – 2019 Pumping Report



|                   | Total Pumped<br>(Thousands) | Total Sold<br>(Thousands) | Total Unsold<br>(Thousands) | Unaccountable<br>Unsold<br>(Thousands) | Unaccountable<br>Unsold % |
|-------------------|-----------------------------|---------------------------|-----------------------------|----------------------------------------|---------------------------|
| <b>Sept '18</b>   | 30,118                      | 28,871                    | 1,247                       | 820                                    | 2.7%                      |
| <b>Oct '18</b>    | 16,256                      | 15,198                    | 1,058                       | 749                                    | 4.6%                      |
| <b>Nov '18</b>    | 12,153                      | 11,057                    | 1,096                       | 703                                    | 5.8%                      |
| <b>Dec '18</b>    | 14,073                      | 12,447                    | 1,626                       | 998                                    | 7.1%                      |
| <b>Jan '19</b>    | 15,035                      | 13,556                    | 1,479                       | 1,228                                  | 8.2%                      |
| <b>Feb '19</b>    | 11,738                      | 10,795                    | 943                         | 691                                    | 5.9%                      |
| <b>Mar '19</b>    | 15,572                      | 14,324                    | 1,248                       | 937                                    | 6.0%                      |
| <b>Apr '19</b>    | 27,464                      | 25,712                    | 1,752                       | 985                                    | 3.6%                      |
| <b>May '19</b>    | 21,278                      | 20,016                    | 1,262                       | 899                                    | 4.2%                      |
| <b>June '19</b>   | 30,391                      | 29,047                    | 1,343                       | 802                                    | 2.6%                      |
| <b>July '19</b>   | 31,078                      | 29,996                    | 1,082                       | 475                                    | 1.5%                      |
| <b>Aug '19</b>    | 61,184                      | 58,074                    | 3,110                       | 2,298                                  | 3.8%                      |
| <b>Sept '19 *</b> | 53,145                      | 52,395                    | 786                         | 125                                    | 0.2%                      |

\* September water loss is off due to inaccuracy of the Shoenthal well master meter.

## Water Department Monthly Activities:

|                      |       |                            |     |
|----------------------|-------|----------------------------|-----|
| New Meter Installs   | 6     | Work Orders                | 379 |
| Meter Replacements   | 2     | Locates                    | 23  |
| City Owned Leaks     | 1     | Irrigations Permits Issued | 1   |
| Meters Read May 2019 | 1,648 | Total Rebates              | 1   |

### Projects:

- Whispering Oaks Project is Ongoing
- Meter Testing and Laptop Readings
- Chris Graef Took a Backflow & Assembly Class
- Cl2 Scales have been installed
- National Night Out

| Meters Flow Tested | Passed | Failed |
|--------------------|--------|--------|
| 103                | all    | None   |

| Laptop readings | Analyzed | Possible Leaks |
|-----------------|----------|----------------|
| 135             | 122      | 34             |

**Print**

**City Commission Volunteer Interest Form - Submission #1511**

**Date Submitted: 10/3/2019**



**City of Garden Ridge**

*"A way of life, not just a place to live"*

**City Commission**

**Volunteer Interest  
Form**

**Date**

mm/dd/yyyy

**First Name**

Angus

**Last Name**

Beard

**Address**

20338 Regency Run

**City**

Garden Ridge

**State**

Texas

**Zip Code**

78266

**Phone Number**

**Other contact number**

## Occupation

Retired

**Please check which of the following Commission you have a desire to serve on:**

☒ Planning and Zoning Commission

☒ Wildlife Management Advisory Commission

☒ Quarry Commission

☒ Any City Commission

☒ Water Commission

**Tell us why you desire to serve on a City Commission.**

interested in making Garden Ridge an even better place to live.

**List any Boards, Commissions or Committees you have previously served on in Garden Ridge or other entities.**

**Please attach your resume or a bio.\***

Angus Beaird Resume V6.docx

**A resume or a bio is required to be submitted with Volunteer Interest Form.**

# Angus G. Beaird

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## PROFESSIONAL SUMMARY

Human Resources Manager, Talent Manager, Diplomat-Advisor, Trainer, Operations Manager, and Military Veteran with a Secret Security Clearance and 20 years of proven experience in the United States Army. Career supported by a Master's degree in Industrial and Organizational Psychology.

Training Development  
Managing Change  
Process Improvement  
Cost Analysis

Author  
Diversity  
Senior Leadership  
Policy Implementation

Employee Recognition Process  
Diplomatic Relations  
Microsoft Office Suite  
Marketing

## PROFESSIONAL EXPERIENCE

### Angel Staffing, Inc.

January 2018- April 2018

#### Human Resources Manager

- Managed all areas of HR including employee relations, performance management, onboarding, benefits administration, recruiting/staffing, training, compensation analysis, and managing admin staff.
- Served as HIPAA and OSHA Compliance and Training Officer.
- Performed all areas of HR functions for over 40 employees working on various government contracts worth over 10M
- Developed training and instituted policies that enhanced efficiency, improved adherence to acceptable business practices, and enhanced safety guidelines for risk mitigation.
- Responsible for researching medical prospective employee's medical, criminal, professional, and credentials backgrounds to ensure the best candidates were selected for employment.
- Reported to, directly interacted, and collaborated with the Chief Operations Officer daily

### U.S. Army – Multiple Locations

October 1996 – November 2017

#### Senior Human Resources and Talent Manager

- Led a team of 140 people ranging from U.S. Army employees to contracted civilian employees managing and developing training curriculum, execution, after action reviews
- Facilitated over 31,416 medical appointments resulting in a 99.4% success rate effecting \$3,700,000.
- Created a process and products database that reduced employee and manager research time by 26%
- Developed an awards submission process that improved timeliness and accuracy for over 50 awards
- Maintained accurate records for all employees
- Established procedures to ensure timely investigations for employee issues including discipline, performance, pay, and safety issues

#### Diplomat and Medical Advisor

- Mentored and advised 54 foreign units that supported over 100K personnel in health service support including modernization, policy development, material acquisition, human resources, training development, and quality control
- Developed and refined medical support training and support contracts worth over \$7.8M
- Exercised diplomatic prowess during frequent interactions with host nation royalty, senior government officials, and CEO level military level employees
- Authored a culturally focused paper on the intricacies of advising Saudi Arabian counterparts that was lauded by leadership and resulted in better relations in the region

# Angus G. Beaird

## **Director of Instruction and Curriculum Development**

- Directed the instruction of Joint Medical Readiness Training for Combat Casualty Care indoctrination of over 1,000 physicians, physician assistants, Nurses, and Dentist from all branches of the Department of Defense as well as International Medical Officers
  - Led 22 medical officers through intensive combat scenario training that enhanced their capabilities to increase the survival rate of wounded employees on the battlefield
  - Instructed Pre-Hospital Trauma Life Support training for 32 medical officers, attained a 100% certification rate due to his superior instructor skills
  - Managed \$250K of training equipment; ensured zero losses and maintained 100% serviceability
  - Improved department supply economy resulting in a savings of \$25K
- 

## **EDUCATION**

**MA, Industrial and Organizational Psychology** - University of the Incarnate Word, San Antonio, TX

**BS, Applied Arts and Sciences** - University of the Incarnate Word, San Antonio, TX

**AA, General Studies** – Central Texas College, Killeen, TX

## **SPECIALIZED TRAINING**

Lean Six Sigma – Yellow Belt

Master Resilience Trainer Course

Legal Administrator Pre-Appointment Course

Senior Leader Course

## **NOTABLE AWARDS**

National Engaged Leader Award - National Society of Leadership and Success (Sigma Alpha Pi)

Bronze Star Medal (valor/exceptionally meritorious performance in combat; awarded three times)

National Champion semi-professional football player; San Antonio Warriors (OL, DL, FB, TE)

**Print**

**City Commission Volunteer Interest Form - Submission #1520**

**Date Submitted: 10/4/2019**



**City of Garden Ridge**

*"A way of life, not just a place to live"*

**City Commission**  
Volunteer Interest  
Form

**Date**

10/4/2019

**First Name**

c

**Last Name**

Carmichael

**Address**

9423 Gardenia Bend Dr

**City**

garden ridge

**State**

tx

**Zip Code**

78266

**Phone Number**

**Other contact number**

**Email Address**

## Occupation

retired/engineer

**Please check which of the following Commission you have a desire to serve on:**

☐ Planning and Zoning Commission

☐ Wildlife Management Advisory Commission

☐ Quarry Commission

☐ Any City Commission

☒ Water Commission

## **Tell us why you desire to serve on a City Commission.**

retired after 50 years of service to country and the state of Texas at this time in my life i want to give back to the community i am a licenced professional engineer in the state of Texas

**List any Boards, Commissions or Committees you have previously served on in Garden Ridge or other entities.**

**Please attach your resume or a bio.\***

RESUME100807-3.doc

**A resume or a bio is required to be submitted with Volunteer Interest Form.**

## **Richard C. Carmichael, PhD, PE**

### **Education**

Southern Methodist University, Doctor of Civil/Environmental Engineering, (minor management)  
Texas A&M University, MS, Civil/Environmental Engineering, (minor industrial hygiene)  
University of Texas, Austin, Texas; BS, Architectural Engineering, (minor environmental systems)

### **Licenses, Registrations, and Certifications**

Professional Engineer, Texas #35899

Over 35 years of professional experience in civil/environmental engineering, solid waste management, industrial hygiene, and public health in the areas of environmental monitoring/investigation/remediation, hazardous and non-hazardous wastes evaluations/determinations, radiation, chemical and physical hazards, noise, water and wastewater, and epidemiology.

Experience: Texas Commission on Environmental Quality: Section Manager, Municipal Solid Waste. Responsible for the permitting, registration, and remediation of solid/liquid waste management facilities, transfer stations, and recycling/composting facilities in the State of Texas. I supervised engineers, geologists, and other scientific professionals in the review of plans and specifications for municipal solid waste landfills, transfer stations, processing facilities (treatment, recycling, composting), and energy recovery facilities. I routinely met with applicants to discuss technical/engineering issues associated with permits/registrations, permit renewals and modifications. Under my supervision the municipal solid waste rules for the State of Texas were re-opened and completely revised. I interpreted and applied the Municipal Solid Waste rules for all solid waste facilities from adoption to my retirement in April 2011. I dealt directly with recycling and composting issues associated with various facilities under rules for notification, registration, and permit tier facilities. Prior to working in municipal solid waste, I was the Supervisor of RCRA hazardous waste permitting team. I was responsible for supervision of permitting activities for hazardous waste management facilities. I reviewed engineering plans and specifications for design and construction of chemical manufacturing, hazardous and non-hazardous waste storage facilities, surface impoundments, and landfills.

BNFL INC: Manager, Environment Safety & Health for the National Conversion Pilot Project, the Rocky Flats Technology Site, a Department of Energy project for the decontamination and decommissioning (D&D), refurbishment and use (for production) of four Department of Energy production buildings and associated manufacturing equipment. Work consisted of decontamination of the production buildings, disassemble of all equipment, abatement of physical hazards, refurbishment of manufacturing equipment, and disposal of radioactive wastes.

Stone & Webster Engineering Corporation: Denver, CO. Lead Engineer for the western region and the project manager for a \$50 million dollar general environmental services contract for the National Guard Bureau.

Woodward-Clyde: Denver, CO. Project Manager, for Woodward-Clyde's Rocky Mountain Arsenal Interim Response Contract. This was a four year effort covering the remediation of several challenging sites including treatment options for Basin F Liquids, (mixed waste from the demilitarization of chemical warfare agents and the production of commercial pesticides), and hot spot areas containing percent levels of arsenic and mercury, potential chemical warfare agents, white phosphorous, ICP metals, and volatile and semi-volatile organics.

US Air Force: Active Duty Officer, Worldwide, Title: Bioenvironmental Engineer: Worked directly for the Base Surgeon in implementation of environmental monitoring, occupational health & safety and public health programs. I was the Contracting Officer's Technical Representative/Branch Chief, for the U.S. Air Force Installation Restoration Program, the military equivalent of the EPA's Superfund program.

**Armando Diaz Jr.**

21010 Gunther Grove  
Garden Ridge, TX 78266

Dear City of Garden Ridge, TX, Water Commission Members ,

I believe my past experience, skills, and qualifications would be of great benefit as a member of the City of Garden Ridge Water Commission. I have lived in Garden Ridge over 20 years and have experienced the rapid growth seen by this City as well as the surrounding areas . This dynamic has led me to pay closer attention to the important issues facing Garden Ridge.

I have twelve years of experience in Oil & Gas project sourcing in various sourcing positions. My most recent position was Project Sourcing Lead. Prior to this I was with the Federal Reserve Bank of Dallas where I retired after 27 years. Roles I've held in my career in Banking and the Oil & Gas industry called for skills and abilities where attention to detail, exercising high levels of control, anticipating change as well as planning for change were required to be an effective team member and manager.

This experience as well as the qualities and my desire for the City of Garden Ridge to anticipate, plan and successfully implement change for the benefit of the Citizens is at the heart of my desire to serve.

Your consideration is appreciated.

Best Regards,

Armando Diaz

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Summary of Qualifications</b>  | <p>Over twelve years experience in sourcing of equipment, instrumentation, materials and managing outsourced fabrication equipment used in the assembly of CO2 and Natural Gas Liquefaction (LNG), Natural Gas Pre-Treatment and Natural Gas Liquids (NGL) plants. Understanding of P&amp;ID, PFD and piping isometrics and applicability to equipment conditions and requirements</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Summary of Work Experience</b> | <p>2013 – May 2019 - Baker Hughes, a GE Company – Schertz TX</p> <p><b>Project Sourcing Leader</b></p> <ul style="list-style-type: none"> <li>▪ Close working relationship with commercial sales team to ensure proposal offering on project process equipment and materials captures all project requirements and conditions</li> <li>▪ Review of equipment and material specifications with engineering to help ensure equipment requirements are properly aligned with project requirements and equipment is not burdened with additional unnecessary specifications which add costs</li> <li>▪ Support manufacturing and project team on resolving issues with non-conforming products and involve supplier to ensure all non-conforming items are corrected or replaced to meet project specifications.</li> <li>▪ Work closely with Sourcing Buyer Team and keep them informed of project equipment budgets, schedules and delivery requirements</li> <li>▪ Negotiate commercial terms and conditions as well as payment terms with suppliers</li> <li>▪ Strategic alignment and development of supplier base to ensure continued fulfillment of equipment and material orders.</li> <li>▪ Manage supplier outsourcing for fabricated materials. Such as pipe and structural steel fabrication.</li> </ul> <p>2007 – 2013 - Salof Refrigeration – Schertz, TX (GE Oil &amp; Gas acquisition in June 2013)</p> <p><b>Procurement Department Manager</b></p> <ul style="list-style-type: none"> <li>▪ Planned, directed and coordinated sourcing of equipment and materials for fabrication of CO2 and LNG liquefaction plants with project manager and project engineer(s)</li> <li>▪ Coordinated project procurement plan with Project stake holders including project manager, fabrication manager, I&amp;E project manager and shipping and receiving</li> <li>▪ Provided accounting system administrator support</li> <li>▪ Negotiated cost and delivery of project materials with suppliers</li> <li>▪ Developed and implemented purchasing and contract management instructions, policies, and procedures.</li> <li>▪ Directed and coordinated activities of personnel engaged in buying materials, equipment, machinery, and supplies.</li> </ul> <p>2006 – 2007 - Salof Refrigeration-New Braunfels TX</p> <p><b>Special Projects</b></p> <ul style="list-style-type: none"> <li>▪ Trained with Procurement Manager as a Buyer</li> <li>▪ Expedited orders with suppliers and provided status to project stakeholder</li> </ul> |

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Summary of Work Experience</b><br>(Cont'd) | <ul style="list-style-type: none"><li>▪ Negotiated cost and deliverables with suppliers</li><li>▪ Assisted in development of CO2 Liquefaction Plant Design Specification Manual</li><li>▪ OJT – Reading P&amp;ID, Mass Flow, and PFD</li></ul> <p>1979 – 2006 - Federal Reserve Bank of Dallas</p> <p>Manager, High-Speed Currency Processing</p> <p>Analyst, Treasury Securities</p> <p>Technical Coordinator, Securities</p> <p>Various other roles and responsibilities</p> <p>1975 – 1979 - United States Marine Corps</p> <p><b>Honorable Discharge</b></p> |
| <b>Languages</b>                              | English, Conversational Spanish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Education</b>                              | 1979 – 1981 University of Texas, El Paso<br>Basic course work – no degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

# Water Commission Rolling Attendance at Water Commission Meetings

|             | 9/25/18<br>Regular<br>Meeting | 10/23/18<br>Regular<br>Meeting | 11/15/18<br>Special<br>Meeting | 11/27/18<br>Regular<br>Meeting | 12/18/18<br>Regular<br>Meeting | 1/22/19<br>Regular<br>Meeting | 3/26/19<br>Regular<br>Meeting | 04/23/19<br>Regular<br>Meeting | 05/28/19<br>Regular<br>Meeting | 06/25/19<br>Regular<br>Meeting | 7/23/19<br>Regular<br>Meeting | 8/27/19<br>Regular<br>Meeting | 9/24/19<br>Regular<br>Meeting |
|-------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Vacant      |                               |                                |                                |                                |                                |                               |                               |                                |                                |                                |                               |                               |                               |
| Bullard     | P                             | P                              | P                              | P                              | P                              | P                             | P                             | P                              | P                              | A                              | P                             | P                             | A                             |
| Valdez      |                               | P                              | P                              | P                              | P                              | P                             | P                             | P                              | P                              | P                              | P                             | P                             | P                             |
| Haltaman    |                               |                                |                                |                                |                                |                               |                               |                                |                                | P                              | P                             | P                             | P                             |
| Mueller     |                               |                                |                                |                                |                                |                               |                               |                                |                                |                                |                               |                               |                               |
| Harshbarger | P                             | P                              | P                              | P                              | P                              | P                             | A                             | P                              | P                              | P                              | P                             | P                             | P                             |

|       |                                            |
|-------|--------------------------------------------|
| P     | Present                                    |
| P-QNM | Present but quorum<br>not meet             |
| E     | Excused for reasons<br>allowed in Ord. 210 |
| A     | Voluntary<br>Announced Absence             |
| U     | Unannounced<br>Absence                     |
|       | Not member yet                             |

**2019 Water Commission's Attendance  
at City Council Regular Meetings**

|             | 01/02/19<br>Regular<br>Meeting | 02/06/19<br>Regular<br>Meeting | 03/06/19<br>Regular<br>Meeting | 04/03/19<br>Regular<br>Meeting | 05/01/19<br>Regular<br>Meeting | 06/05/19<br>Regular<br>Meeting | 07/03/19<br>Regular<br>Meeting | 08/07/19<br>Regular<br>Meeting | 09/04/19<br>Regular<br>Meeting | 10/02/19<br>Regular<br>Meeting | 11/06/19<br>Regular<br>Meeting | 12/04/19<br>Regular<br>Meeting | Total for<br>year |
|-------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------|
| Vacant      |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                   |
| Bullard     |                                |                                |                                | P                              |                                |                                |                                |                                |                                |                                |                                |                                | 1                 |
| Valdez      | P                              | P                              | P                              | P                              | P                              | P                              | P                              | P                              | P                              | P                              |                                |                                | 10                |
| Haltaman    |                                |                                |                                |                                |                                | P                              |                                |                                |                                |                                |                                |                                | 1                 |
| Mueller     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                |                   |
| Harshbarger |                                |                                |                                |                                |                                |                                | P                              | P                              |                                |                                |                                |                                | 2                 |

|  |                     |
|--|---------------------|
|  | Met requirement     |
|  | Not met requirement |

# November 26, 2019

## Regular Meeting

### Agenda deadlines:

- |                                |            |                                                                                                                                                                                                       |
|--------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>14</b> days before Meetings | (11/12/19) | Water Commission and Staff items are due                                                                                                                                                              |
| <b>11</b> days before Meetings | (11/15/19) | Water Commission Chair review agenda. <ul style="list-style-type: none"> <li>City Attorney is sent the agenda to approval</li> </ul>                                                                  |
| <b>7</b> days before Meetings  | (11/19/19) | Post Agenda on bulletin board <ul style="list-style-type: none"> <li>Water Commission will receive packet (allowing a day and half for corrections and additional information to be added)</li> </ul> |
| <b>5</b> days before Meetings  | (11/21/19) | Post Agenda Packet to City Website @ noon                                                                                                                                                             |
| <b>4</b> days before Meetings  | (11/22/19) | (72 hours) – Local Government Code requirement for posting                                                                                                                                            |

City Council = Red  
 Quarry Commission = Purple  
 Planning & Zoning = Green  
 Water Commission = Blue  
 Impact Fee Committee = Pink  
 Wildlife Management Advisory Commission = Brown  
 Municipal Court = Gray  
 City Holiday=Orange

| Sun | Mon | Tues | Wed | Thur | Fri | Sat |
|-----|-----|------|-----|------|-----|-----|
|     |     |      |     |      | 1   | 2   |
| 3   | 4   | 5    | 6   | 7    | 8   | 9   |
| 10  | 11  | 12   | 13  | 14   | 15  | 16  |
| 17  | 18  | 19   | 20  | 21   | 22  | 23  |
| 24  | 25  | 26   | 27  | 28   | 29  | 30  |

### Approvals

- Minutes 10/22/19

### Recommendations

### Discussion/Reports

- Water Manager Report
- Commission Activities and Projects
- City Council Update
- Future Agenda Items
  - Set next meeting (if necessary) December 24 @ 6

### Training Session

### Executive Session

### PENDING FUTURE AGENDA ITEMS

- Educational Class on Water Conservation
- Consideration on rate adjustments for landscaping installation
- Review of drought management plan

# December 24, 2019

## Regular Meeting

### Agenda deadlines:

- 14** days before Meetings (12/10/19) Water Commission and Staff items are due
- 11** days before Meetings (12/13/19) Water Commission Chair review agenda.
  - City Attorney is sent the agenda to approval
- 7** days before Meetings (12/17/19) Post Agenda on bulletin board
  - Water Commission will receive packet (allowing a day and half for corrections and additional information to be added)
- 5** days before Meetings (12/19/19) Post Agenda Packet to City Website @ noon
- 4** days before Meetings (12/20/19) (72 hours) – Local Government Code requirement for posting

City Council = Red  
 Quarry Commission = Purple  
 Planning & Zoning = Green  
 Water Commission = Blue  
 Impact Fee Committee = Pink  
 Wildlife Management Advisory Commission = Brown  
 Municipal Court = Gray  
 City Holiday=Orange

| Sun | Mon | Tues | Wed | Thur | Fri | Sat |
|-----|-----|------|-----|------|-----|-----|
| 1   | 2   | 3    | 4   | 5    | 6   | 7   |
| 8   | 9   | 10   | 11  | 12   | 13  | 14  |
| 15  | 16  | 17   | 18  | 19   | 20  | 21  |
| 22  | 23  | 24   | 25  | 26   | 27  | 28  |
| 29  | 30  | 31   |     |      |     |     |

### Approvals

1. Minutes 11/26/19

### Recommendations

### Discussion/Reports

2. Water Manager Report
3. Commission Activities and Projects
4. City Council Update
5. Future Agenda Items
  - a. Set next meeting (if necessary) January 24, 2020 @ 6pm

### Training Session

### Executive Session

### PENDING FUTURE AGENDA ITEMS