



Building Communities.
Improving Lives.



Municipal Water System Public Information Meeting

February 8, 2023

American Legion
68 3rd Street SW Swisher, IA

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Introduction

Agenda

- Previous Public Information Meeting held 1/25/22
 - Presentation is Available on City's website
- Presentation tonight to answer questions submitted
 - Community Questions and Answers will be posted on City's website
- Open forum for Q&A



Question: What are the Advantages and Disadvantages of City Water?

Advantages:

1. Public Health
2. Reliability of Service
3. Fire Protection
4. Community Development
5. Homeowner's Insurance

Disadvantages:

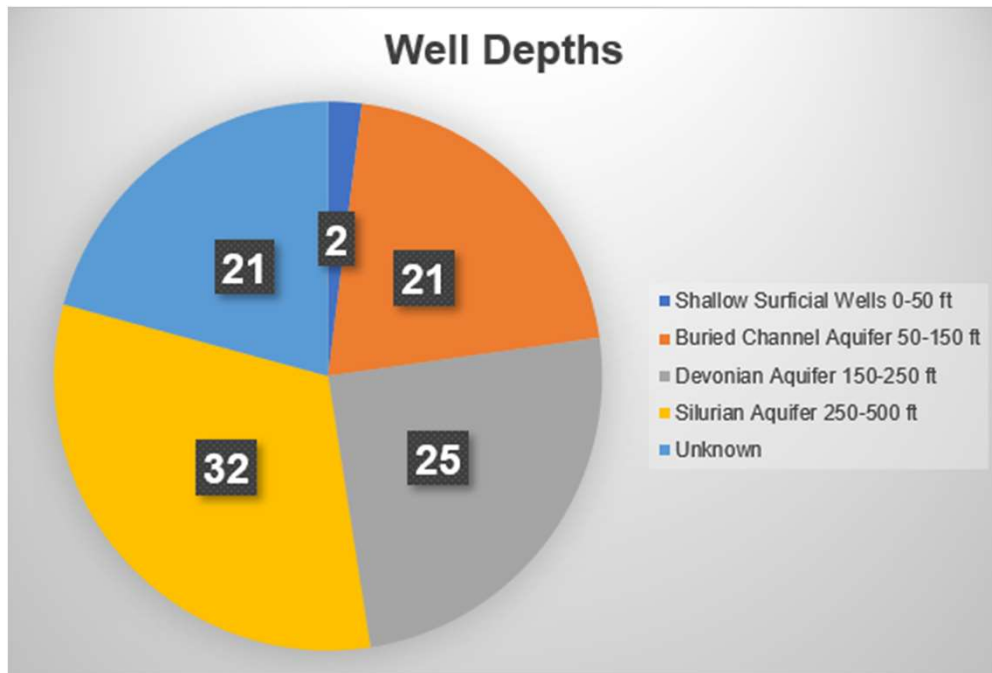
1. Capital infrastructure Costs



Question: Why has DNR not contacted residents with regard to PFAS?

- EPA is required to establish a primary drinking water standard
 - DNR only has authority to enforce primary standards
 - Public Notification by EPA, DNR, Johnson County, other organizations
- Additional information on PFAS is available on the City's website
<https://www.swisheria.org/news>

Additional Information on Private Wells



- ▶ New Private wells typically drilled into Silurian aquifer
- ▶ Costs to homeowner: ~\$30,000



Question: What are the benefits of having wells? Has there been a groundwater assessment?

- Groundwater source requires minimum levels of Treatment (per EPA)
 - Applies to both Public and Private Wells
- Existing Silurian PWS Well sampled:
 - No parameters above an EPA primary (enforceable) standard
 - Iron levels slightly above EPA secondary (aesthetic) standard



Question: Provide additional information on Private well water quality testing options

- Private Wells can be tested for PFAS through Johnson County
<https://www.johnsoncountyiowa.gov/public-health/well-testing>
Phone: 319-356-6040
- Tests administered free of charge on a first-come, first-served basis



Question: What are the health impacts of PFAS? What happens if your well tests positive for PFAS and what are the remedies?

- Health Effects: Reproductive and developmental effects, increased cancer risks, impacts to the immune system, others
- Potential Remedies:
 - Obtain water from different source. Shallower groundwater is more susceptible to contamination
 - Treatment alternatives for drinking water: Granular Activated Carbon, Ion Exchange Resins, RO membrane systems



Question: Was service considered from Cedar Rapids or other communities?

- Preliminary study considered service from: City of Cedar Rapids, Poweshiek Rural Water, City of North Liberty
- Water service from these communities/systems was not possible due to capacity limitations, logistical considerations, and costs to provide service

Question: What type of treatment will there be? Chlorine or Fluoride?

- Initial Study looked at potential Treatment Options
- Existing Silurian PWS Well sampled: Chemical treatment only
 - Chlorine for bacteria (typical)
 - Phosphate for iron, lead/copper leaching
 - Fluoride is optional

Question: Have Well Capacity Tests been Completed? How deep will the wells be?

- The City has not conducted aquifer capacity testing
- Desktop Well Siting Study: 150-200 gpm target well capacity
- Well Depth: ~500 feet
- Phase 1 Improvements include 2 new Silurian Wells
- Existing PWS wells could be added to City system thru buy-back program



Question: What happens to wells not bought back by the City?

- Policies and Procedures by future Ordinance. Preliminary concept:
 - Private Wells could remain for irrigation use
 - Costs for private well abandonment would be responsibility of the homeowner
 - Funding assistance: TBD

Additional Information on Sampling

Private Well Sampling:

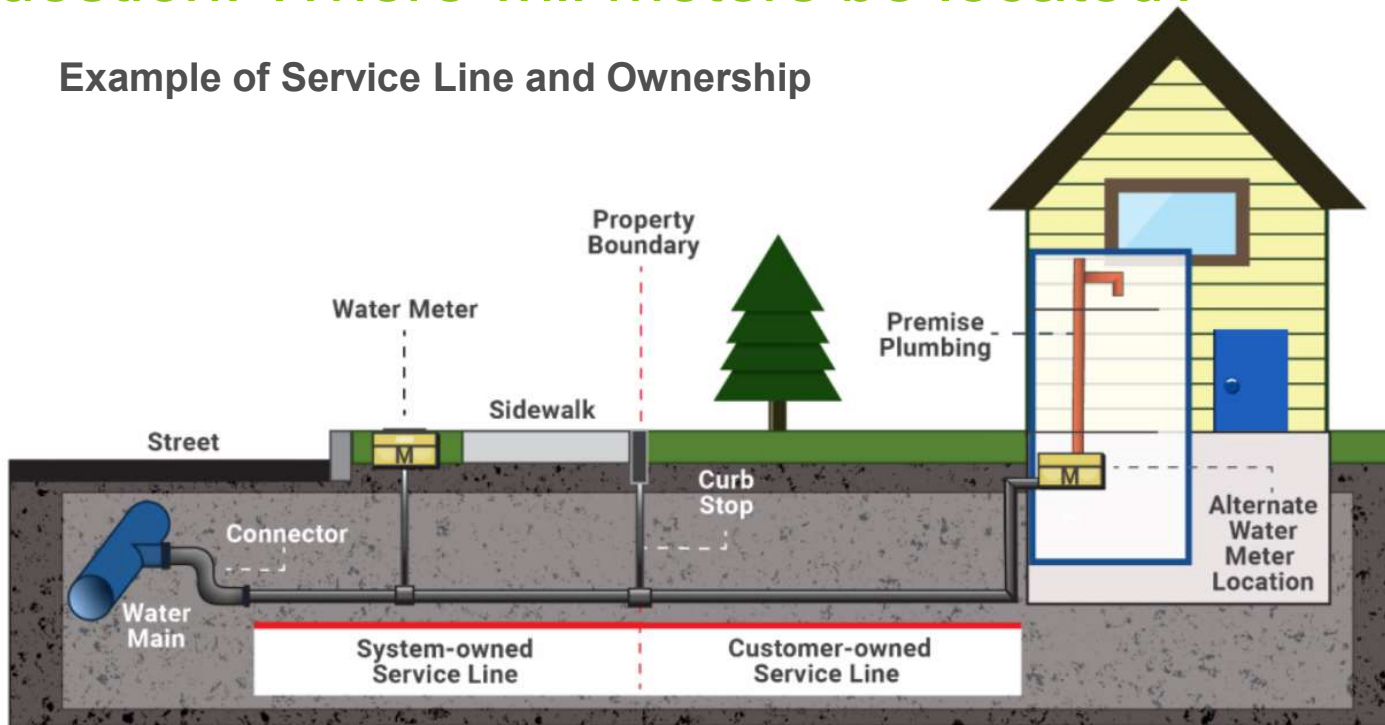
- Initial Bacteria and nitrate in well is typical
 - Lab Costs ~\$70
- Full testing is available (see PWS right)

PWS Sampling:

- Comprehensive source water sampling per DNR standards
 - Lab Costs ~\$2,000
- Additional routine sampling for chlorine, bacteria, copper/lead, others
- Benefit of consolidating with fewer wells

Question: Where will meters be located?

Example of Service Line and Ownership



(Source: EPA's *Guidance for Developing and Maintaining a Service Line Inventory*)



Question: What is ISO? Explain Ratings

Insurance Services Office (ISO) establishes Public Protection Classification (PPC)

- Ratings based on:
 - Communications: 10 points
 - Fire Department: 50 points
 - Water Supply: 40 points
 - Community Risk Reduction: 5.5 points
 - **Total = 105.5**



ISO Ratings, Continued

- Minimum Criteria for ISO PPC:
 - PPC 9: FDs without Water System
 - PPC 8 (or better): Water Supply System plus other criteria. Points then Apply
- Swisher: PPC rating of 9/10
- Ely, Solon, Fairfax: PPC Rating of 4
- PPC Rating Change: Reduce insurance rates by ~10-20%

PPC Rating	Points
1	90-105.5
2	80-90
3	70-80
4	60-70
5	50-60
6	40-50
7	30-40
8	20-30
9	10-20
10	0-10

Question: Clarify JMFD's facilities and the number of tanks required for a structure fire?

- JMFD has four tanker/pumper trucks with 400 to 3,000 gallon tanks
- NFPA recommends 1,000 gpm fire flow rate for 1 & 2-family 2-story homes
 - Total Storage Volume of 20,000 gallons recommended per NFPA
 - JMFD has 6,400 gallons in tanker/pumper truck capacity
- JMFD refills tanker trucks at its station outside of Swisher
- JMFD's service territory outside of Swisher would remain as-is

Question: Will existing water mains be used from PWSs or community wells? How will new mains be installed?

- Current Water Mains meeting current City design/specification standards that can deliver fire flow could be used:
 - Criteria: Minimum 6” diameter, materials, construction methods
- New water main installation: in City ROW along streets
 - Trenchless/bored: Minimizes surface disruptions
 - Trenched: Excavations for installation. Required for service line connections

Question: What would be the allowable Materials of Construction?

- Standards: City of Swisher's Supplemental Standards to SUDAS
- Water Main: Ductile Iron (DI) or PVC
 - DNR requirements for DI in areas of groundwater contamination
- Service Lines: Copper, PVC, Polyethylene are most common



Question: Who is responsible for final connection of the Service Line? Is there a warranty period?

- City-installed portions of service lines will be by a bonded Contractor
- City CIP projects typically include a warranty period
- Final Connections and Fees to the building/residence: TBD



Question: Is there a timeline for connecting to the water system? What happens to Private wells?

- Connections will be over time based on the phased implementation
 - Overall goal is to have all connected at the end of Phase 2
- City CIP projects typically include a warranty period
- Final Connections and Fees to the building/residence: by future Ordinance

Question: What is the service territory? What will be the normal service pressure?

- Service territory includes areas within corporate limits
 - Water main to consider looped connections (no dead ends)
- Service pressures:
 - Preliminary study: 55-100 psi
 - Tower height sets service pressures
 - Individual service line pressure reducing valves (PRVs) per Code

Question: What type of storage? Where would a tower be located? Would it be provided with mixers?

- Elevated storage tank (water tower) included in Phase 1 Improvements
- Initial study evaluated 3 options: Similar performance in the system
- Anticipated for Water Tower to be at a Well Site
- Final design of Water Tower would consider water quality/stagnation w/ mixers, etc.



Question: Why does Swisher not have a 55+ retirement community or any sort of senior housing?

- Swisher previously had senior housing options
- Critical utilities to attract development:
 - Water Service
 - Fire Protection Service
 - Sewer Service

Question: With the proposed developments, are there additional infrastructure costs for the City's Sewer System?

- City has annexed 110 acres for future development
 - 40-acre preliminary plan for area north of 120th Street
- Developer is responsible for infrastructure service costs within the site
- City Project to replace undersized sewer main and roadway
 - Water included under new roadway
- Plans are available on the City website

<https://www.swisheriaorg/news>



Question: What is the Federal Infrastructure Funding?

Infrastructure and Investment Jobs Act (2021)

- \$50 Billion in funding for Water & Wastewater
- First Year Funding: \$28.5 Million in IA
- Annual cap of \$2 Million per community
- Administered through State Revolving Fund:
 - Emerging Contaminants: Includes PFAS and other parameters
 - Priority Projects: Includes New Public Water Systems
 - Socioeconomic Status: Based on Scoring
 - Household Costs for Water/Wastewater: Based on Rates



Question: What are low-income threshold for grants?

Swisher's Economic Status:

- Median Household Income: \$84,167 (IA average \$60,523)
- Population Below Poverty Level: 2.1% (IA average 11.5%)
- Low to Moderate Income Population: 31%
- Swisher is not considered disadvantaged



Question: When will customers be charged for the water system?

If the vote passes:

- City and Municipal Advisor to develop rate structure
- Preliminary discussions on rates:
 - Potential community-wide low Flat Rate to build up a Water Fund
 - During Phase 1 & 2: Initial Flat Service Rate for those served
 - After Completion of Water System: Billing on metered usage



Question: What are the Costs for Phases 1 and 2?

Phase 1: Wells & Water Tower

- Capital costs: \$5.22M
- Monthly Loan Payment: \$22,200
- Monthly O&M Costs: \$16,700
- **Total Monthly Cost to Customer: \$46**

Phase 2: Distribution System

- Capital costs: \$13.95M
- Monthly Loan Payment: \$59,300
- Monthly Incremental Customer Cost: \$71
- **Total Monthly Cost to Customer with Phases 1 & 2: \$117**

Every \$1,000,000 in Grant dollars reduces the monthly customer cost by ~\$5



Usage Rates – Adjacent Communities

For an assumed Household size of 4 and 4,000 gallons per month:

Community	Total Monthly Cost
Anamosa	\$45.73
Cedar Rapids	\$33.99
Ely	\$21.71
Iowa City	\$25.62
North Liberty	\$59.33
Palo	\$25.39
Solon	\$21.71

- ▶ Preliminary Plan for Phase 1 Water Main Included
- ▶ Additional Improvements:
 - 250,000-Gallon Water Tower
 - Upsize planned wells within developments





Question: How does the City plan to communicate during upcoming projects?

- Similar to current CIP projects:
 - City Council Meetings
 - Public Hearings and Meetings
 - City Website
 - Mailers and/or Door Flyers



Question: If the vote passes, will residents be able to opt out of City water?

- The goal of a Municipal Water System is to provide service throughout the community
- Future Ordinances to establish policies for:
 - Continued private well use
 - Connection requirements and applications
 - Time extension/service exemptions for connection



Open Forum for Community Q&A



Questions



Additional questions can continue to be submitted:

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