

# Water System Expansion – Program Update July 13, 2020 Village Board Presentation

**Village of Lannon, Wisconsin**

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# Funding Update

- Total Program Budget: \$10.9M of Public & Private Costs
- Total Grant Funds **Obligated**: \$8.9M
- Community Development Block Grant (CDBG)
  - \$847,868 Obligated for Private Resident Work
- USDA Rural Development Loan and Grant
  - \$3,493,000 Grant toward Public Water Mains
  - Requires Mandatory Connections to Water System
- The Quarry Fund
  - Waukesha County Community Foundation
  - \$4,560,000 Obligated
    - Private Property Assistance
    - Public Costs not USDA Eligible

# Example Scope and Approximate Cost of Private Property Work with Assistance

## Special Assessment -or- Local

Water Main Impact Fee:	\$ 15,000	(USDA-RD & Quarry)
New Service Installation:	\$ 0	(CDBG)
Plumbing Conversion:	\$ 0	(CDBG)
Well Abandonment:	\$ 0 - 800	(DNR or Quarry)
Well Impact Fee:	<u>\$ 0</u>	(Quarry)

## Example Approx. Total with Assistance

**\$ 15,000**

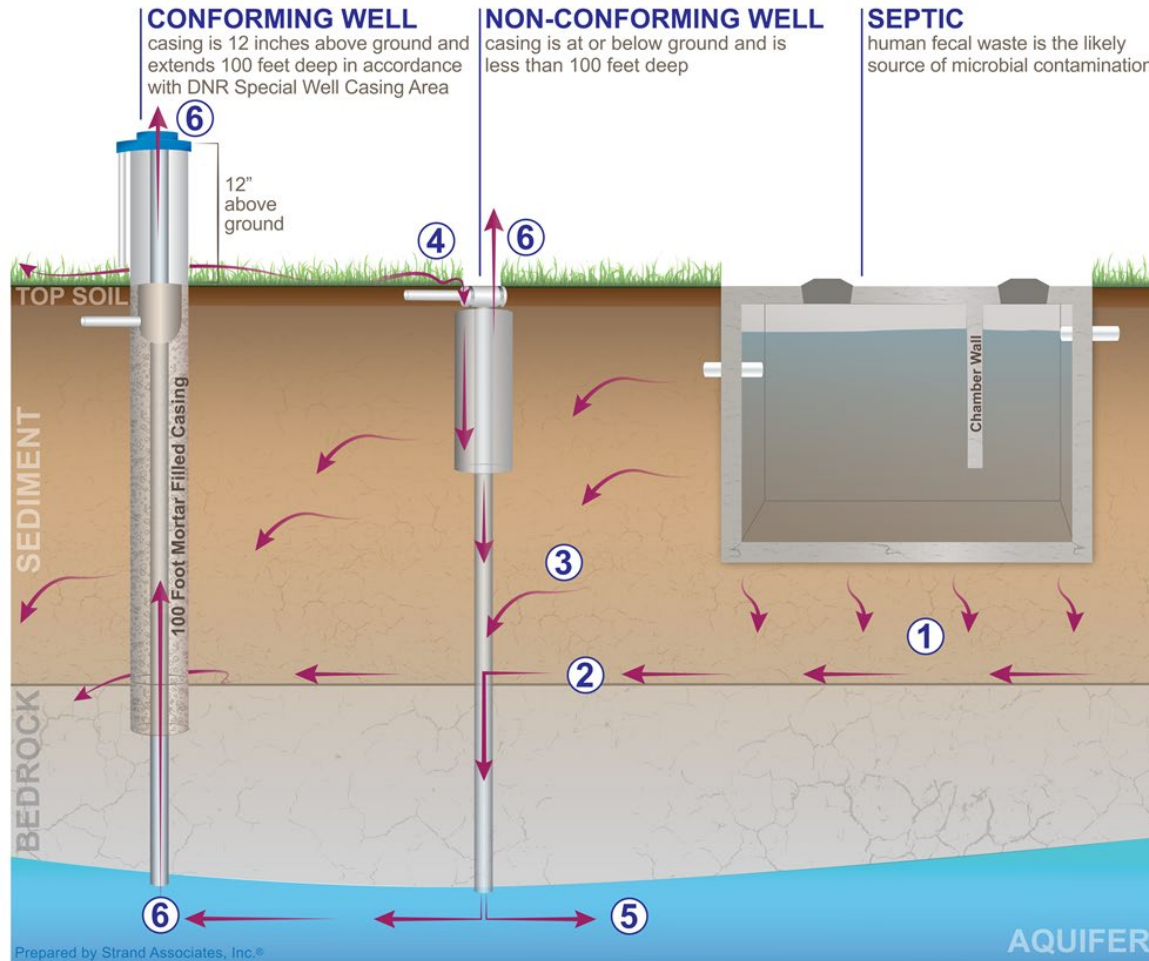
## Notes:

- Grant priority has been placed on minimizing up-front costs.
- Special Assessments have payment options from 0-20 years.
- This amount is for a single family residence.
- Plumbing conversion costs likely not covered if property owner keeps their private well.
- DNR well abandonment grants are subject to income verification.

# Additional Funds May be Available to Property Owners for Remaining Expenses

- Special assessments will be payable over time
- Impact fees will be billed at time of building permit
  - USDA Community Assistance Grants
    - Low income & seniors
    - Deferred loans and grants
    - Approx. \$20,000, 1% interest, 20+ year payback
  - Local financial institutions
    - Landmark Credit Union – \$10,000, 2.5% interest COVID loan
    - Towne Bank – Village to inquire about potential program
  - Other home renovation, refinance, or personal loans

# Compulsory Connection Ordinance – Water Quality History has Driven the Need for Municipal Water



## Microbial & E.Coli Transport to Private Wells

- ① Septic tank contaminant discharge soaks into ground.
- ② Shallow bedrock causes contaminants to move horizontally.
- ③ Contaminants encounter non-conforming well holes in the bedrock and quickly migrate to the bottom of the well hole and the aquifer.
- ④ Surface contaminants wash into non-conforming well caps.
- ⑤ Contaminants migrate horizontally through the groundwater, exposing neighboring wells.
- ⑥ Contaminants are drawn up into conforming and non-conforming wells.

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# History of Water Quality Events in Lannon

- 1955: Village of Lannon issues survey inquiring about municipal water
- 1959: WDNR institutes a “Special Lannon Well Casing Area” requirement to mitigate bacteria issues in the ground water
- 1962-1965: WDNR conducts “Investigation of the Safety of Private Water Supplies Lannon, Wisconsin”
- 1965: WDNR concludes that the preferred action is to develop a public water supply to protect public health
- 1986: WDNR publishes “A Report on a Groundwater Investigation in Southeastern Lisbon Township and the Village of Lannon” and recommends municipal water and sewer for both communities
- 1997: Municipal sewer is installed throughout Lannon to mitigate bacteria sources in the groundwater

# History of Water Quality Events in Lannon – Cont'd

- 1997: Engineering Study again recommends a municipal water solution and indicates water quality will worsen when quarries stop pumping
- 1997: Some municipal water pipes are installed to save costs and many property owners voluntarily paid \$100.00 to install a dry service lateral (a decision that saves over \$5,000 today)
- 2006-2008: Whispering Ridge Condominiums installs and transfers a municipal well to the Village. A partial municipal water system becomes active as the Village of Lannon Municipal Water Utility.
- 2008: Due to the controversy at the time, mandatory connections were not required.
- 2012-2018: Village Engineer fields approximately 1 call per year from a distressed homeowner whose well quality failed repeatedly, stalling home closing.

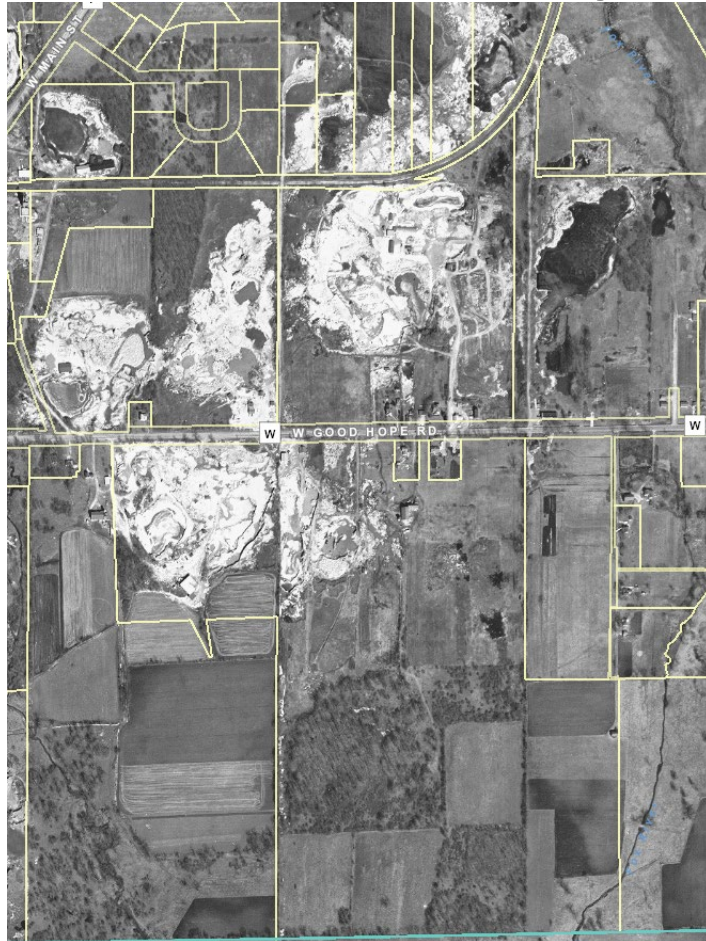


# History of Water Quality Events in Lannon – Cont'd

- 2018: Lannon Elementary and several surrounding private wells test positive for E.coli bacteria.
- 2018: The Village Board Makes an Emergency Declaration and Directs the Following:
  - Extend municipal water service to Lannon Elementary
  - Direct staff to study and find the most affordable extension of municipal water to remaining residents
- 2019: Municipal water is successfully extended to Lannon Elementary
- 2019-2020: Intensive study and loan and grant application is underway.
- 2020: \$8.9M of Grant monies are obligated
- 2020, 4<sup>th</sup> Quarter: Private property work scheduled to begin
- 2020 – 2021: Public water main and second source installation

# The Quarries Have Changed, However the Water Quality Remains the Same

1963: Active DNR Investigation

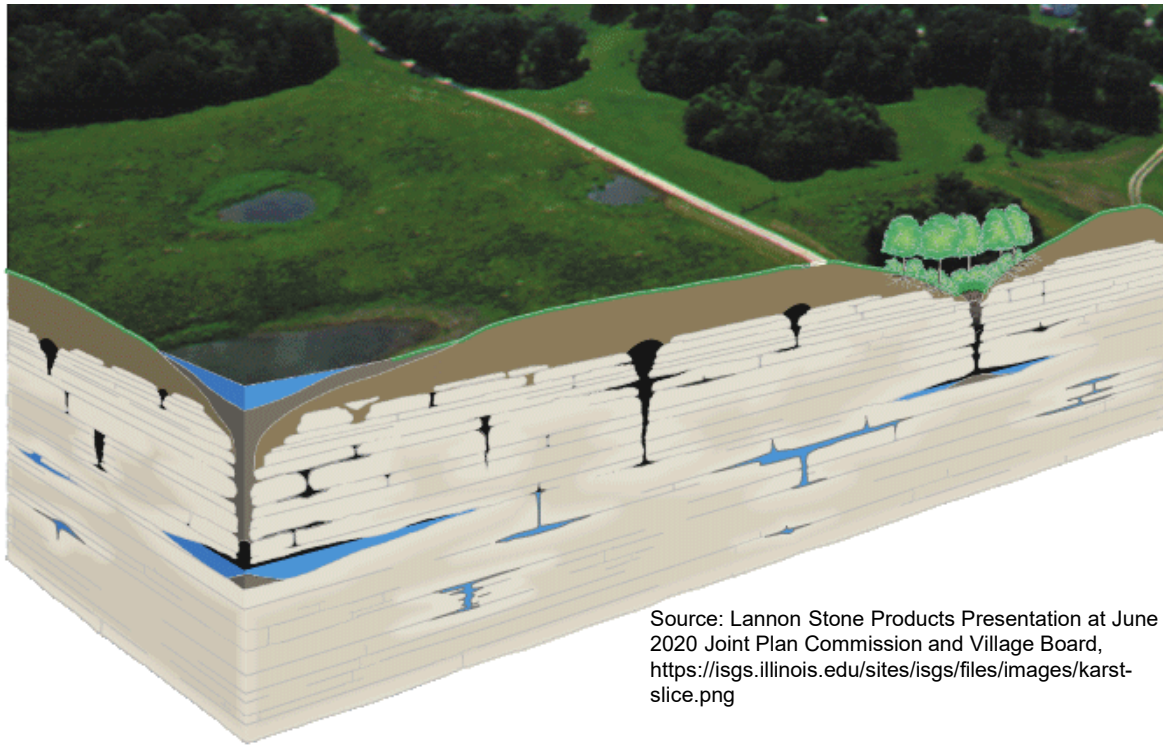


2015: Water Quality Persists



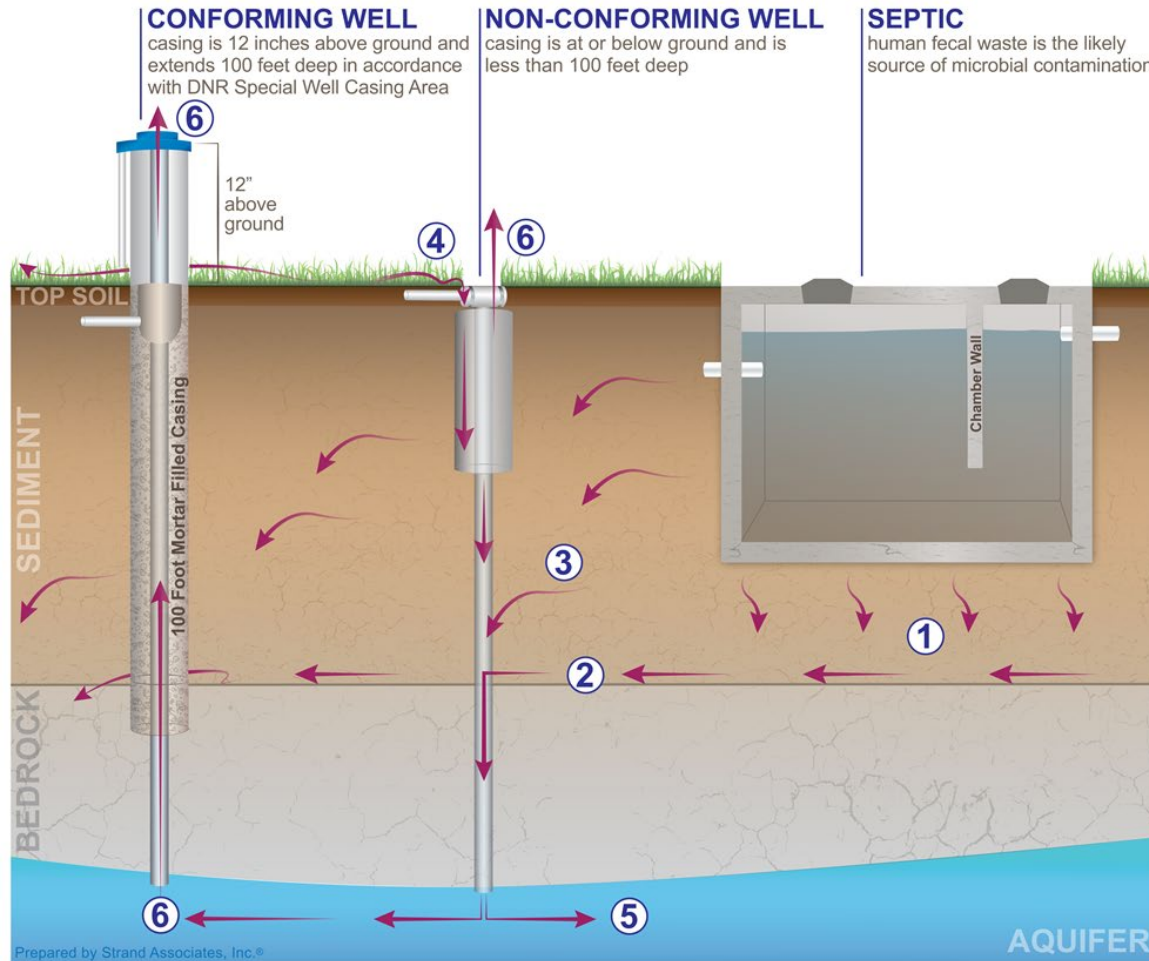
# Local Geology Has Historically Been an Opportunity and a Challenge for the Village of Lannon

- The aquifer exists within fractures in the limestone bedrock
- Contaminants can migrate quickly through the fractures
- Wells with poor casing can be an entry point for bacteria



Source: Lannon Stone Products Presentation at June 25, 2020 Joint Plan Commission and Village Board, <https://isgs.illinois.edu/sites/isgs/files/images/karst-slice.png>

# Geology and Failing Septic Systems are a Significant Source of Bacteria



## Microbial & E.Coli Transport to Private Wells

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# Compulsory Connection Ordinance

- Poor Water Quality has Troubled Lannon Since at Least 1955
- Mandatory Connection is a Requirement of the USDA Prior to Bidding
- Key Points
  - Connect within 6 months of water main installation
  - Industry: production well may be kept, domestic plumbing must convert to municipal water
  - Homeowner private wells
    - If kept, update Well Operation Permit Ordinance 74-159
    - Or abandon
- Suggested Motion
  - Approve the mandatory connection ordinance conditioned upon the USDA approving of the draft revision

# Waukesha Community Foundation – The Quarry Fund

- Quarry Agreements Approved on June 25, 2020 and Obligated \$4.56M
- Waukesha Community Foundation to Hold Funds
- Agreement Sets Overarching Guides for How the Fund Works
- Key Points
  - Offset or subsidize private property owner expenses incurred, including special assessment reductions, that are unreimbursed from other programs
  - Offset or subsidize Village expenses that are not eligible for USDA Loan and Grant Monies

# Waukesha Community Foundation – Village of Lannon Quarry Fund Committee

- The Committee will draft a Program
- The Program will detail what exact costs are eligible
- The Committee will review funding requests
- The Committee will submit fund disbursement requests from the Foundation
- Proposed Committee Composition
  - 1 Village Board Member, Impacted by the USDA Project
  - 1 Current Water Utility Customer, Not Impacted by the USDA Project
  - 1 Non-Utility Customer, Not Impacted by the USDA Project
  - Advisors
    - Village Engineer
    - Village Staff
    - Quarry Members

# Waukesha Community Development Block Grant Update

- Request for proposal for private property residential work
- 1 to 3 contractors will be selected based on qualifications and fee
- Village will enter into contract with the contractor
- \$425,000 must be spent by end of 2020
- Remaining work to take place in 2021



# Grant Administrative Assistance

- Develop contract documents for private property work
- Assist the County to develop RFP and participate in contractor selection
- Participate in monthly progress meetings and take official minutes
- Communicate between Contractor, building inspector, property owner, Village, Waukesha County, and the Foundation
- Participate in the Village Grant Committee and assist in drafting the Grant Program
- Review monthly pay applications and aid in funding documentation
- \$75,000 time and expense for 16 months