Louviers Water and Sanitation District
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November 9, 2021

Douglas County Board of County Commissioners
100 Third Street
Castle Rock, CO 80104

RE: Douglas County's American Rescue Plan Act Allocation Request

Dear Commissioners:

Louviers Water and Sanitation District (the District) is responsible for providing potable water and sewer service within its existing boundaries. The District serves the Town of Louviers, which is located in Douglas County, west of US Highway 85, approximately 7 miles south of Highway C-470 and 10 miles north of Castle Rock. The population of Louviers was 269 as of the Census in 2010 and the current number of "rooftops" (taps) the District is serving is 113. Louviers is comprised of areas that are fully developed with no future development currently planned for surrounding areas.

Much of the water distribution system and sanitary sewer collection system was conveyed to Louviers from Dupont in the early 1960s. The exact timing of original construction of the existing systems is unknown but suspected to have occurred in the early 1900's when the town was built by Dupont. Due to the age of the existing system, there is need for replacement for a large majority of the two systems. In addition to infrastructure age, the District is under an enforcement order from the Colorado Department of Public Health and Environment (CDPHE) due to the ground water supply not meeting the minimum requirements for safe drinking water due to radium levels in the water. Radium in drinking water over the maximum contaminate limit over many years is of concern because radiation from the radium may cause cancer.

The District requests the following projects be considered for funding through the Douglas County's American Rescue Plan Act allocation:

- Renewable water supply from adjacent district(s) to replace current groundwater supply or treatment of existing groundwater supply
- Replace aging infrastructure

<u>New Renewable Water Supply or Treatment of Existing Water Supply</u>
Currently the District utilizes ground water for water supply. In 2020, CDPHE issued an enforcement order to the District as the water supply is not able to meet the minimum requirements for safe drinking water due to radium in the water. The District has evaluated options from treatment to connecting to a nearby surface water system.

The District has been in discussion with adjacent water districts for options to connect to their system. The District would need to construct a water line from Louviers to the closest water line and willing service provider. To meet maximum daily demand and provide the District with fire flow, a 12" water line would be required. Infrastructure costs to get the water line to Louviers could run approximately

$2,380,000. In addition to infrastructure costs, the District would be required to purchase water system and supply from a willing provider. The estimated cost for this is $4,200,000-$4,500,000. The total estimated cost to complete a connection is nearly $7,000,000 and is the top safety priority for the District. There are number of possible water districts in the area and the District continues to evaluate all options for a renewable water supply provider.

If renewable water is not available, the District will be required to install a treatment system to remove the radium in the water. The treatment system would be constructed adjacent to their existing water supply well within Louviers. The treatment system is proposed to be an Ion Exchange Treatment system that would remove radium from the water. The operating costs for the treatment system would be high for the small community. The estimated capital cost for a treatment system is $1,020,000 and would require the annual cost to operate and dispose of the radioactive radium that is removed from the water.

The District's schedule for water supply or treatment is needed immediately. The District had proposed a schedule with CDPHE to design the selected option in 2022 and construct in 2023. The District has already started to source funds for this project. The District was awarded $400,000 from the CDPHE Small Communities Water and Wastewater Grant Fund. The District is also in the process to apply for a State Revolving Fund Grant and/or Loan.

Replace Aging Infrastructure

To bring the water distribution system up to modern standards, the existing 2"- 6" main lines would be replaced with 8" main lines all within the Town of Louviers. The new 8" main lines would not only improve reliability of water service but would also provide improved fire protection and safety for the community. Approximately 16,700 feet of main lines need to be replaced within the District. If a renewable water supply can be brought to the District, there is high likelihood that the water distribution system will need replacement sooner rather than later, due to different water chemistry (surface water versus ground water treatment techniques can result in increased corrosion potential to erode old lines, cause system damage, and leeching metals into the water supply). The approximate cost for replacement of the main lines is $3,200,000.

Similar to the water system, the sewer collection system is in significant need of replacement. Recent video inspections of the collection system identified pipe deficiencies, including tree root penetrations, cracked and broken pipes, pipe offsets, and restricted access where pipes change direction, without a manhole present. There are also locations where sewer mains are located less than 10 feet from residential properties and/or potable water lines. These issues are prevalent throughout the collection system; some are out of line with best practices and other issues are hazardous conditions. Approximately 11,700 feet of sewer main need to be replaced. The approximate cost for sewer main replacement is $3,300,000.

Addressing the Districts water quality is the first priority. After the water supply is addressed, the District would move into infrastructure replacement. A proposed schedule for replacement of infrastructure would be to design the new system in 2022 and replace/construct in 2023 - 2024.

In addition to the above needs listed above, for wastewater treatment, the District utilizes a lagoon for secondary treatment and then applies the lagoon effluent on a land application site for nitrogen and phosphorus removal. There have been discussions with the regulatory community that the current treatment method may be restricted or not allowed in the future. There are additional costs that will be coming in the future and addressing the water supply and infrastructure would be a proactive step to avoid future compliance issues and heighten protection to Plum Creek.

Over the last two decades, the District has been as proactive as it could be, with only 113 taps to support major financial needs:

- A second water storage tank was added in the early 2000's.
- In 2009, the District upgraded the wastewater treatment to include the land application site.
- In 2014, the District drilled a new well and upgraded its water treatment facilities.
- Also in 2014, approximately 2,000 feet of potable water main lines were replaced.
- In 2019, approximately 2,650 feet of sewer main line was replaced.
- In 2022, the District plans to replace sewer lateral and mainlines, funding in portion by another CDPHE Small Communities Wastewater Grant and Loan and pending Grant from the USDA.

We beieve Louviers is an important and engaged community within Douglas County. If Louviers is unable to keep up with replacements and upgrades, it could result in disaster for our small populations, with effects reaching further along the Santa Fe corridor. The District is ready and willing to cooperate as a stakeholder and partner in these regional efforts yet would benefit from the County awarding these funds directly to LWSD so the District's board can pursue the best solutions for the Louviers community.

Any assistance, especially financial, that Douglas County could provide through ARPA would be aligned with the purpose of the funding and critical in keeping this community going. We would be happy to have you attend a board meeting or to show you around town to demonstrate these needs. Thank you for your service and attention to this matter.

Sincerely,

Matt Collitt
President of the Board of Directors
Louviers Water and Sanitation District

Attachment: Louviers Water and Sanitation District
Capital Project Needs Infographic 2021

LOUVIERS WATER & SANITATION DISTRICT

PROJECT PLANNER

PROJECT	ESTIMATED COST	FUNDING	FUNDING NEEDED (GAP)	PERCENT FUNDED	SECURED SOURCE OF FUNDS	POTENTIAL FUTURE SOURCE OF FUNDS	DESCRIPTION
SHORT TERM WATER SUPPLY BY 2023	$1,017,000	$400,000	$617,000	39%	CDPHE small communities Water Grant/WIIN Federal Grant	STATE REVOLVING FUND, AMERICAN RESCUE PLAN, Federal Drinking Water and Wastewater Act of 2021 sec. 101, 102, 114, 210 (if passed)	Ion Exchange System to remedy contamination
LONG TERM WATER SUPPLY BY 2025?	$6,580,000	$-	$6,580,000	0%	COMMUNITY PARTNERSHIP/RANGE DEVELOPMENT	PARTNERSHIPS WITH WHOLESALE WATER SUPPLIER, AMERICAN RESCUE PLAN, Federal Drinking Water and Wastewater Act of 2021 sec. 108, 114, 203, 205 (if passed)	Renewable Water Connection
WATER DISTRIBUTION BY 2025?	$3,142,000	$-	$3,142,000	0%	NONE	Energy/Mineral Impact Assistance Fund Grant (EIAF), AMERICAN RESCUE PLAN, Federal Drinking Water and Wastewater Act of 2021 sec. 104, 105, 205 (if passed)	Replaced Internal Water Connections to support renewable
WATER STORAGE BY 2024?	$1,118,000	$-	$1,118,000	0%	NONE	AMERICAN RESCUE PLAN, Federal Drinking Water and Wastewater Act of 2021 sec. 105, 106, 205 (if passed)	New Storage Tank
WASTEWATER COLLECTION BY 2023	$3,214,000	$598,000	$2,616,000	19%	CDPHE SMALL COMMUNITIES WASTEWATER GRANT/UDSA LOAN AND GRANT	CDPHE SMALL GRANT/USDA Loan and Grant, Federal Drinking Water and Wastewater Act of 2021 sec. 104, 206, 207, 210 (if passed)	Replaced Internal Wastewater Infrastructure
WASTEWATER TREATMENT BY 2027?	$3,000,000	$-	$3,000,000	0%	NONE	Energy/Mineral Impact Assistance Fund Grant (EIAF), PARTNERSHIPS, AMERICAN RESCUE PLAN, Federal Drinking Water and Wastewater Act of 2021 114, 204, 206, 207, 209 (if passed)	Improved Regional Treatment Facility, take application site treatment off-line
TOTALS:	$18,071,000	$998,000	$17,073,000	6%		USDA Loan and Grant and Colorado Water Conservation Board (CWCB) could provide additional funding.	

LOUVIERS WATER & SANITATION DISTRICT

WASTE WATER PROJECT - To replace the old main line and connect lateral service lines.

OPTION A: USDA - LOAN & GRANT

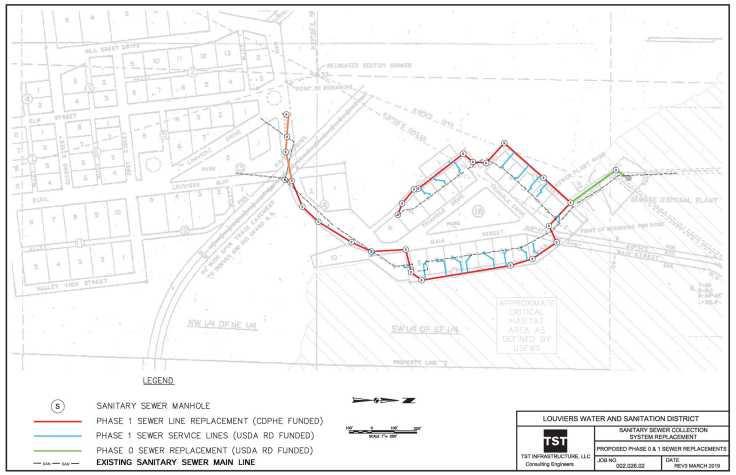
- ***100 K USDA Loan -*** MUST be spent first - may be used for main line ONLY (shown as GREEN, on right side of map).
- ***185 K USDA Grant -*** Can be used only after Loan has been used. Can only be used for original main line scope (shown as GREEN*).

OPTION B: CDPHE GRANT

- ***313 K CDPHE Grant -*** Can be used for main line or lateral lines under current or revised scope.
- ***80 K Matching from LWSD -*** Can be used for main line or lateral lines. (CDPHE would accept USDA funds as matching source.)
- ***393 K Total available funds***

OPTION C: STATE REVOLVING FUNDS

- **Use State Loan/Grant -** Can possibly be used instead of the USDA loan/grant.



NEXT STEPS:

- **Amend scope of work to use CDPHE funds for 'additional' work, to include South line**
- **Get Bids with alternates**
- **If CDPHE scope amendment is not approved: use CDPHE funds, refuse USDA loan/grant, possibly seek alternate loan/grant funds**
- **If CDPHE scope amendment is approved: use USDA and CDPHE funds - unless the bids are too high. If bids are too high, use funds first on original scope**
- **USDA Grant could be amended, but at significant planning costs.**

LOUVIERS WATER & SANITATION DISTRICT

WATER RADIUM MITIGATION
Options for addressing ongoing issues

CDPHE WATER GRANT - 400 K
LWSD MATCHING - 223 K
TOTAL FUNDS AVAILABLE - 623 K

OPTION 1: WELL DRILLING

- ***Cost to drill - 500 K***
- ***The [illegible] MUST perform to use funds!*** If the well does NOT perform, no reimbursement available!

OPTION 2: TEMPORARY/LONG-TERM TREATMENT

- ***Use Radium treatment to remove Radium from water -*** Radium concentrate to be shipped to appropriate waste treatment facility. Could be used as long as well is productive.

OPTION 3: CONNECT TO RENEWABLE WATER SUPPLY

- ***Connect to Regional renewable system -*** Long-term solution, most expensive option.