

Decommissioning and Remediation of Class V Injection Wells **FY2020 Request:** **\$2,200,000**
Reference No: **50790**

AP/AL: Appropriation **Project Type:** Life / Health / Safety
Category: Transportation
Location: Statewide **House District:** Statewide (HD 1-40)
Impact House District: Statewide (HD 1-40) **Contact:** Tammy Kramer
Estimated Project Dates: 07/01/2019 - 06/30/2024 **Contact Phone:** (907)465-4070

Brief Summary and Statement of Need:

This is the final phase of the U.S. Environmental Protection Agency (EPA) required decommissioning and remediation of 55 Class V injection wells statewide. In 2012, the EPA took enforcement action against the Northern and Central Regions for violating Part C of the Safe Drinking Water Act. The Department of Law and the Department of Transportation and Public Facilities (DOT&PF) negotiated and signed a Consent Agreement and Final Order (CAFO) that gave the department until December 31, 2018 to decommission and close all wells.

| Funding: | <u>FY2020</u> | <u>FY2021</u> | <u>FY2022</u> | <u>FY2023</u> | <u>FY2024</u> | <u>FY2025</u> | <u>Total</u> |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| 1001 CBR Fund | \$2,200,000 | | | | | | \$2,200,000 |
| Total: | \$2,200,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,200,000 |

| | | | | |
|---|---|---------------------------------------|---|-----------------------------------|
| <input type="checkbox"/> State Match Required | <input type="checkbox"/> One-Time Project | <input type="checkbox"/> Phased - new | <input checked="" type="checkbox"/> Phased - underway | <input type="checkbox"/> On-Going |
| 0% = Minimum State Match % Required | | <input type="checkbox"/> Amendment | <input type="checkbox"/> Mental Health Bill | |

Operating & Maintenance Costs:

| | <u>Amount</u> | <u>Staff</u> |
|----------------------|---------------|--------------|
| Project Development: | 0 | 0 |
| Ongoing Operating: | 0 | 0 |
| One-Time Startup: | 0 | 0 |
| Totals: | 0 | 0 |

Prior Funding History / Additional Information:

Sec17 Ch1 SLA2017 P95 L22 HB57 \$5,500,000
 Sec35(c) Ch18 SLA2014 P117 L23 SB119 \$561,200
 Sec1 Ch18 SLA2014 P64 L5 SB119 \$938,800
 Sec1 Ch16 SLA2013 P79 L25 SB18 \$1,200,000

As of November 2018, DOT&PF has closed 45 wells. Closure work includes developing an EPA approved closure plan, soil sampling, well closure and removal, and removal and disposal of all contaminated liquids, sludge, and soil from in and around the injection well. The EPA has agreed to modify the CAFO termination date by extending the deadline for well closure by three years.

Project Description/Justification:

As of November 2018, DOT&PF has closed 45 wells. Closure work includes developing an EPA approved closure plan, soil sampling, well closure and removal, and removal and disposal of all contaminated liquids, sludge, and soil from in and around the injection well. The EPA has agreed to modify the CAFO termination date by extending the deadline for well closure by three years.

In FY2018, \$5.5M was received for decommissioning and remediation efforts. The additional \$2.2M allows the continuation of these efforts in FY2020 keeping the department on track for meeting the Consent Agreement and Final Order deadline.

BACKGROUND:

The Underground Injection Control (UIC) program at the EPA regulates underground disposal activities to ensure that fluids injected or percolated underground do not endanger underground sources of drinking water. Specifically, UIC regulation 40 C.F.R. §§ 144.12(a) and 144.82 prohibits “the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of the primary drinking water standards, other health based standards, or may otherwise adversely affect the health of persons”. Federal regulation bans motor vehicle waste disposal wells throughout the nation and requires closure because they pose a threat to drinking water resources. Fifty three (53) remaining DOTPF facilities route liquids collected on the floors into floor drains leading directly into the ground. The EPA’s regulations consider these “dry wells” or leach fields to be Class V Injection Wells. Where motor vehicle maintenance is done, EPA considers these facilities to be out of compliance and potential sources of drinking water contamination. These injection wells are no longer authorized and must be capped, sampled, and the underlying soils remediated when necessary. Alternative systems must be designed and installed to dispose of the accumulating floor drainage flows in accordance with EPA requirements.

Underground Injection Control (UIC) regulations at 40 C.F.R Part 144 classify motor vehicle waste disposal wells as Class V Injection Wells. In 2000, the EPA banned motor vehicle waste disposal wells and required that all such wells be closed throughout Alaska no later than January 1, 2005. A motor vehicle waste disposal well is a shallow disposal system that receives fluids from vehicle repair or maintenance activities conducted in a vehicle maintenance shop. Typical motor vehicle waste disposal wells are floor drains in service bays that connect to a septic system or drywell. However, any underground system that receives motor vehicle waste is considered to be a motor vehicle waste disposal well. During normal vehicle repair and maintenance, fluids such as engine oil or solvents may drip or spill into floor drains in service areas. Motor vehicle wastes include engine oil, transmission fluid, power steering fluid, brake fluid, antifreeze, solvents, and degreasers. If the floor drains are connected to a septic system, dry well, log crib, drain tank, or any other type of underground disposal system, waste fluids may be entering and contaminating the drinking water system.

Funding is needed for the final phase of the U.S. Environmental Protection Agency (EPA) required decommissioning and remediation of 55 Class V injection wells statewide. The EPA previously took enforcement action against the Southeast Region and has now taken enforcement action against the Northern and Central Regions for violating Part C of the Safe Drinking Water Act. The Department of Law and the DOT&PF have negotiated and signed a Consent Agreement and Final Order (CAFO) that gives the department until December 31, 2018 to decommission and close all wells. The EPA has agreed to modify the CAFO termination date by extending the deadline for well closure by three years. The CAFO includes a civil penalty of \$265.0 (the civil penalty was paid from the FY2014 appropriation of \$1,200.0).

The decommissioning process is a multi-step process. Notice of closure and a closure plan must be developed and submitted to EPA at least 30 days prior to closure. The existing well closure must

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permanently plug or otherwise close the well in a way that is approved by EPA and that ensures ground water protection. The next step is to dispose of or manage any soil, gravel, sludge, liquids, or other materials removed from the well and/or the area around the well. Well decommissioning requires that a qualified inspector check the contents of each septic tank, system, and surrounding soils to ensure that there is no contamination. If the soil is determined to be contaminated by oil or other products, all contaminated material must be disposed of or managed by an approved method. After the injection well is officially closed, another sample must be collected and analyzed and the motor vehicle service wastewater must still be collected and managed by an approved alternative method. The department is planning to install holding tanks at the majority of our service facilities as the most cost-effective mitigation measure that meets the operational need at the facilities. The quantity of wastewater that must be handled can range as high as 3,000 gallons per week. The tank can then be periodically pumped out for proper disposal. As the individual well closure plans are developed, the DOTPF will continue to look for the most cost-effective, approved method for disposing of the wastewater.

Site contamination testing is estimated at between \$8,000 and \$10,000 per site. Holding tank installation estimates vary from \$16,500 to \$30,000 per site depending on location. Mechanical system modifications to existing oil/water separators are estimated to be as high as \$100,000 in some locations. Site remediation costs (septic system removal and contaminated materials handling and disposal) are estimated to range between \$46,000 and \$100,000 per site. The department has developed detailed cost estimates to decommission and remediate all remaining wells.