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Project Name: Southeast Utah Health – Phase II Wastewater Digital Database Development

1. Describe the purpose and need for the project.

Onsite wastewater systems have been installed throughout Grand, Emery and Carbon County since the first settlers arrived. Historically records were kept on hard copy files and little is known about actual densities and the current status of onsite wastewater systems in the area. This project will develop a database with geographic information for onsite wastewater systems. The database will be populated with current records, and the geographic information system will allow the health department to understand wastewater densities and keep track of onsite wastewater systems' functionality.

2. Describe the scope of the project.

The scope of this project is relatively large on a geographic scale. It contains all the counties that the Southeast Utah Health Department (SEUHD) regulates. Those counties are Grand, Emery and Carbon County, Utah. The depth of the project is also relatively large as all records of onsite wastewater systems recorded by the SEUHD will be entered.

3. Describe the waterbody affected by the project including its 12 digit watershed code (HUC). The project will encompass numerous hydrobasins in the Green and Colorado River Watersheds. In particular to Grand County are the Mill/Pack Creek hydrobasins in Spanish Valley. The hydrobasins are Lower Pack Creek, HUC 140300050403, Horse Creek-Mill Creek, HUC 140300050404, and the other hydrobasins associated with Mill Pack Creek HUCS that start with HUC 14030005. Hydrobasins also included in this project on the Colorado River, are essentially all the hydrobasins starting with 140300110101 through 140300050609 in Grand County. On the Green River there are numerous sub-hydrobasins included in the following major hydrobasins: Lower Green River HUC, 14060008; San Rafael HUC 14060009; Price HUC 14060007; and the Muddy HUC 14070002. These hydrobasins are generally rural in nature and therefore wastewater treatment has generally been supported with onsite wastewater systems.

4. Describe all existing watershed plans or TMDL's that the project will help implement.

The areal extent of this project is so large there numerous watersheds that do not meet the water quality standards for their designated use. The majority of these impairments have not had a Total Maximum Daily Load (TMDL) analysis. However, there are at least two watershed plans and one TMDL that this project could help implement. The Price River has a watershed plan and the Mill/Pack Creek watershed has both a TMDL and Watershed Plan that pertains to TDS. The TMDL performed for TDS on Pack Creek and perhaps the Price River should benefit from the project. However, this project could greatly benefit Mill/Pack and Castle Creek by helping implement the Moab Area Watershed Management Plan for E Coli contamination.



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5. Describe the water Quality benefits/load reductions to be realized by the project. Ground and surface water will be protected from contamination from onsite wastewater. The project may also help with sourcing current ground and surface water contamination which would then be controlled. Actual load reductions would be difficult if not impossible to calculate.

6. Describe existing project plans and specifications.

The grant for this project will fund the labor costs associated with hiring clerical help to scan all historical septic permits into the computer system. This will enable the AmeriCorps VISTA, obtained through previous grant funding, to digitize and map these permits after creating a digital mapping platform. The VISTA will use the computers obtained through the first grant but will need additional access to external hard drive storage, ArcMap software, GIS subscription, and GPS with Bluetooth. The resulting digital database will allow for and expand the SEUHD's ability to administer its wastewater program and to understand wastewater densities within its jurisdiction.

Timeline:

March 1 - August 1, 2020: Develop the digital platform

August 1 - December 31, 2020: Digitize and Map historical permits

December 31, 2020 - March 1, 2021: Further develop the digital platform to interface with modern technologies such as automatic emails, digital inspection forms and drone photography.

Labor costs are \$12,000 to pay for the clerical help needed to scan historical permits into the system and organize the files digitally.

Equipment costs are \$7,000 to pay for external hard drive storage, ArcMap software, GIS subscription, and GPS with Bluetooth.

7. Describe how project effectiveness will be demonstrated.

With an organized digital database, the SEUHD will be able to analyze the wastewater densities within Carbon, Emery, and Grand Counties. Past permit data can be directly compared to future permit data. This information will guide the organization in applying the best practices for maintaining healthy watersheds.

8. List consultants or agency partners that have participated, or will participate in project development.

Partners in this project include:

The Moab Area Watershed Partnership: The partnership has representative from the Town of Castle Valley, The City of Moab, and Grand Water and Sewer Service Agency. These institutions are supportive of this project as this project will help with planning for growth in Grand County.



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Arne Hultquist: Watershed Coordinator for Grand and San Juan Counties.

9. Proved a detailed budget table for the project showing all proposed expenditures. The Budget for Phase I and Phase II of this project is listed in Table 1.

Table 1: SEUHD Phase I and II Wastewater Digital Database Development Budget			
Phase I			
Expenditures	Amount	NPS Grant	SEUHD Match
Labor- AmeriCorps VISTA	\$4,000	\$4,000	
Computer Equipment	\$4,000	\$4,000	
In-Kind Labor	\$8,000		\$8,000
Total Phase I		\$8,000	\$8,000
Phase II			
Labor- Clerical Help	\$12,000	\$12,000	
GIS Subscription	\$1,250	\$1,250	
ArcMap Software	\$1,500	\$1,500	
External Hard Drive Storage	\$1,250	\$1,250	
GPS with Bluetooth	\$3,000	\$3,000	
In-Kind Labor	\$12,500		\$12,500
Total Phase II		\$19,000	\$13,000
Total Phase I and Phase II		\$27,000	\$21,000

10. Has the Division of Water Quality awarded funding to the applicant in the past? If so, list the year the grant(s) was awarded, and how much funding was received from DWQ. Please include a brief summary of the project work that was completed, and why additional funding is required.

SEUHD received funds in 2017 to install a stormwater catchment and reuse garden at its Moab office to reduce TDS in Pack Creek. That project is successful and was completed in a timely manner and under budget.

In 2019, SEUHD received \$8,000 in total grant funds to build a digital database for documenting historical septic permits and all future septic permits. The project required \$4,000 to sponsor an AmeriCorps VISTA. Recruiting a qualified VISTA took longer than expected, so the project timeline has been shifted from starting in August 2019 to starting in March 2020. She will begin work in March and will work on building a digital mapping platform using ArcGIS systems to document all permits. The other \$4,000 was spent on computer equipment that is necessary to complete the project. As the project progressed, SEUHD recognized that more labor and resources were necessary in order to accomplish the project. The VISTA will need clerical help scanning in approximately 6,000 septic permit records. These records come from



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Carbon, Emery, and Grand Counties; thus, multiple watersheds will be benefited through the creation of a digital database. As there are numerous records, external hard drive storage will be a necessary purchase. The computer equipment previously purchased through grant funding needs supplemental GIS subscriptions and ArcMap software. These programs are essential to digitalizing the database and ensuring the easy accessibility of the permit records.