

Linear Construction in Rights of Way

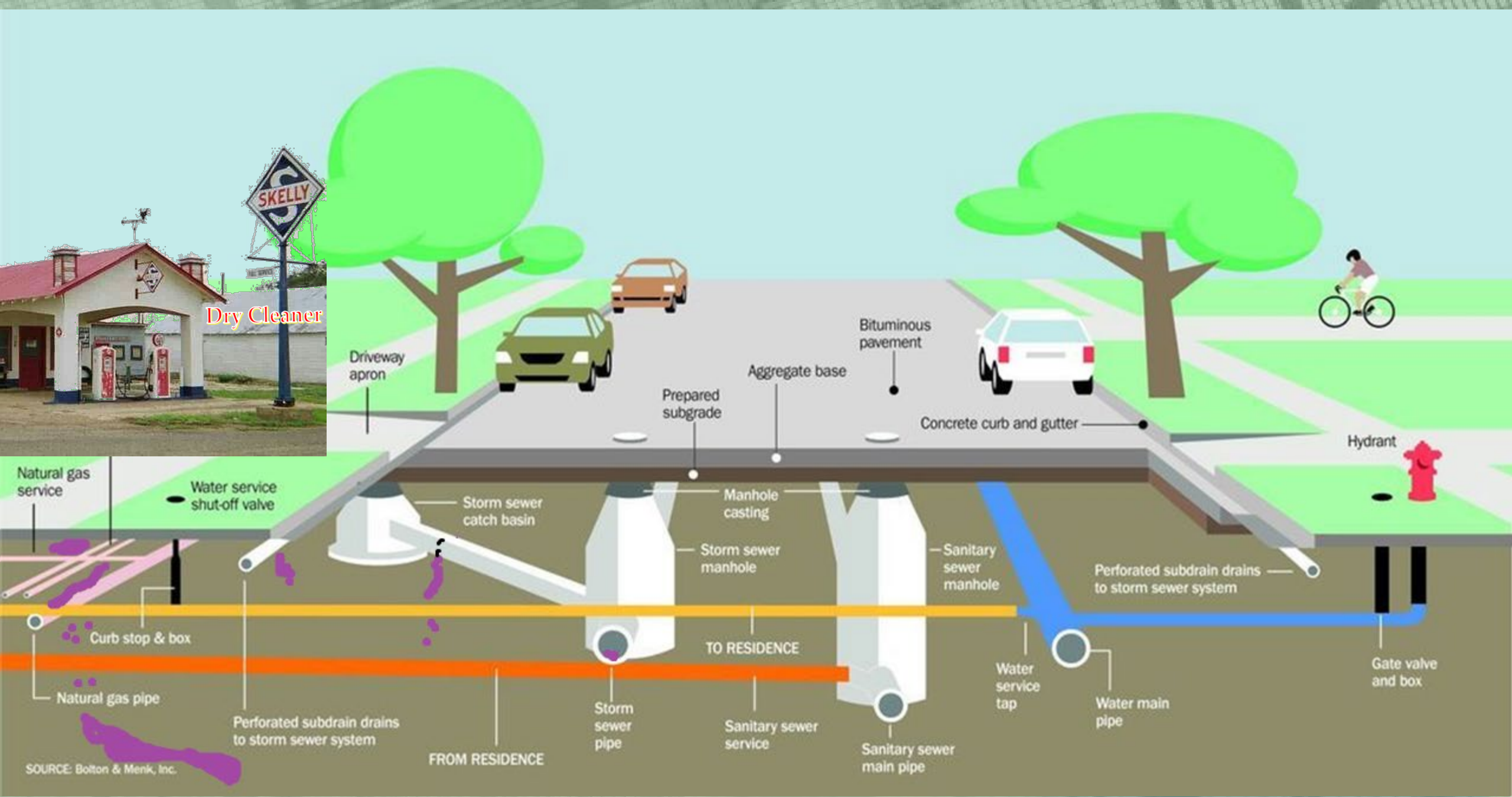
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What is a linear construction project?

- *Investigation and Remediation of Contaminated Properties Rule*
 - § 35-502(31) – construction and development activities, such as waterline and sewer line improvements, that take place within a public or private roadway, railroad, utility line, or their respective rights-of-way where contamination is encountered.
 - 10 V.S.A. §6617 states that **any person who has knowledge** of a release or a suspected release and who may be subject to liability for a release, **shall immediately notify** the Agency.
 - Also - an entity that undertakes a linear construction project may be liable for the investigation, management, and remediation of contaminated environmental media if they move, dispose, or otherwise disturb contaminated media during construction activities.



What we hope you take away from today's presentation:

1. Engineering requirements.
2. Funding sources have **Requirements**
3. The importance of planning for contamination during all phases (planning, design, bidding, construction).
4. Bid document requirements.

Plan for Success!

Failure to properly identify constituents of concern can, under certain circumstances, result in:
*project performance delays, or in
increased response and management costs.*

The **Total Project Cost**, as defined in EJCDC standard contract language, includes the **necessary planning and testing** for project implementation.

As such, the identification of Constituents of Concern within the project site footprint should be established as a necessary component of the total project cost. Such identification and planning steps are integral to the project and not an addition, deletion or revision.

Operating or former: gas stations, service garages, dry cleaners, bulk fuel distributors, locations of historic bridges, pipes, factories, mills, mines etc., including those which have been converted to other uses or closed for years, **are examples** of potential sources of contamination. Furthermore, road alignments may have changed over time resulting in abandoned underground storage tanks (USTs) that may still be present in current ROW.

Because of these potential sources of contamination, the SMS and WID suggest that project owners conduct environmental review of all reasonably available information sources, **before construction**.

General requirements and Project Owner responsibilities:

- Identification of potential subsurface contamination.
- Identification of potential historical resources
- Permits – water, sewer, stormwater, discharge, etc.
- Fund applications – municipal, state, federal, private
 - Federal Crosscutters: DBE, Davis Bacon, AIS, Section 106 etc.
 - PCF eligibility documentation?

What else?

- Regulatory requirements:
 - Materials upgrades (waterlines)
 - Release reporting
- Funding options

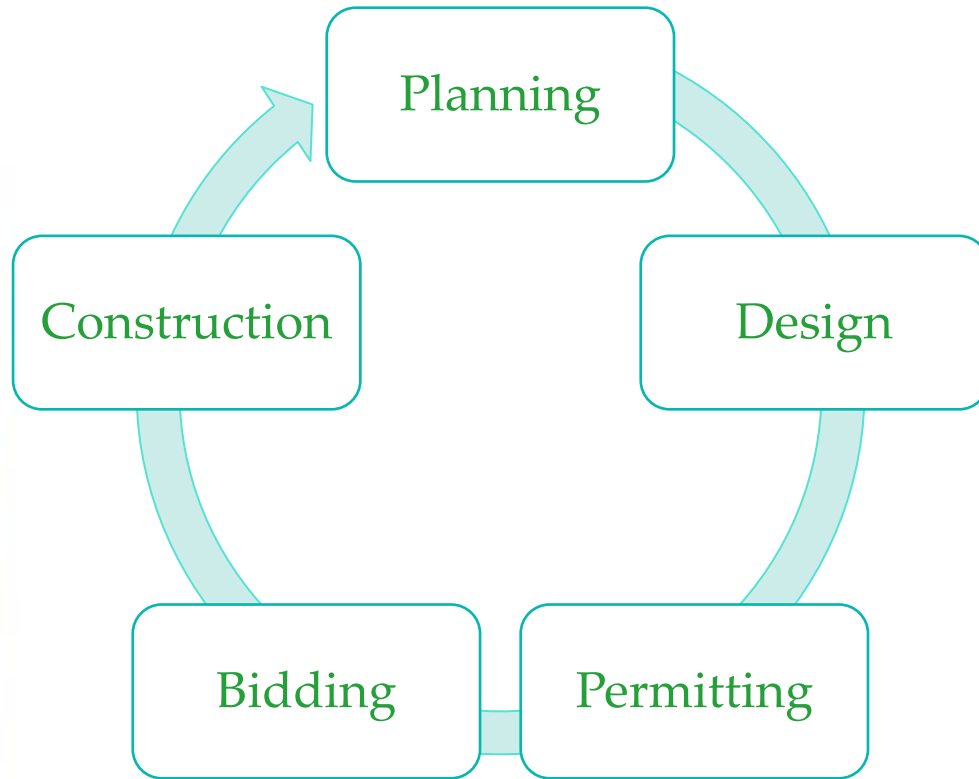
Water Investment Division requirements (general):

- Subsurface Hazardous Materials Inspection for Linear Construction Project, by Planning 60%.
- State Revolving Fund: Guidance Document Number 18 – Project Design Review for Subsurface Contamination and Hazardous Waste Sites.
- ARPA funded? Guidance Document Number 18 – Project Design Review for Subsurface Contamination and Hazardous Waste Sites.
- Contract requirements: upcoming contract changes to include subsurface planning stage screening.

Sites Management Section requirements (general):

- Review the linear construction project guidance during or prior to Planning phase.
- Solicit the assistance of an SMS Project Manager during Planning phase.
- Petroleum Cleanup Fund eligibility.

General linear project timeline



- Planning – identify actual, suspected, or known contamination.
- Design – project scope developed to avoid contaminated areas or to incorporate mitigation measures for contamination into bid documents.
- Permitting – obtain permits for activities related to the management of contamination during construction.
- Bid – provide bidders with the most comprehensive information regarding the location(s) of contamination and how to manage in accordance with Regulations.
- Construction – management of contamination.

Planning

Water Investment:

Identify actual and potential contaminated soils and groundwater within the area of Clean Water and Drinking Water State Revolving Fund funded projects (by Planning 60%). The information collected will be evaluated to determine if projects can be designed to avoid areas of contamination or establish necessary Mitigation measures.

Sites Management:

Identify known or potential sources of contamination using available resources such as the Vermont Agency of Natural Resources Atlas, Vermont Environmental Research Tool, Sanborn® Fire Insurance maps, Agency of Transportation maps, aerial photographs, City directories, town historical societies, long term employees, etc.

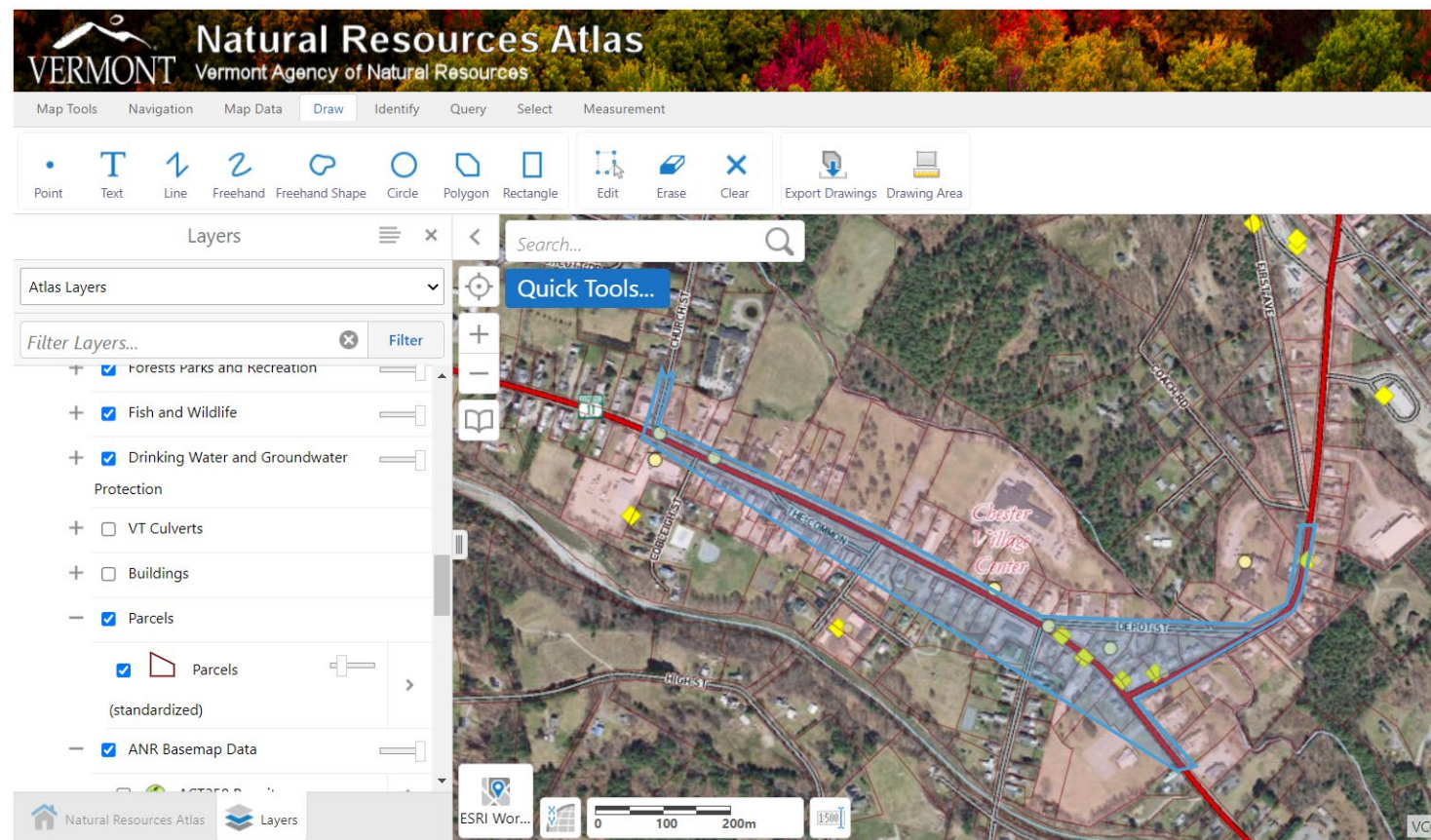
How can I identify subsurface conditions? **Available Resources!**

- [Vermont Agency of Natural Resources Atlas](#)
- [Vermont Environmental Research Tool](#)
- Sanborn® Fire Insurance maps
- Agency of Transportation maps
 - Rail valuation maps
 - Ancient roads maps
- aerial photographs
- City directories
 - Phone books
 - Mannings
- town Historical Societies
- long term employees

Draw your project footprint onto the ATLAS and present this as part of your project planning

Use the ATLAS online to identify known :

- hazardous waste sites
- underground storage tanks
- current and historical dry cleaners



Design

Sites Management:

If the results of the desktop review identify or suggest that contamination will be encountered, subsurface characterization is performed to delineate the extents of contamination within the project work area. Workplans for subsurface characterization require Sites Management review and approval.

Water Investment:

Incorporate the results of the subsurface characterization to minimize exposure to/management of contamination when possible. In addition, any subsurface contamination affecting the project footprint will be addressed in the required project Mitigation Measures.

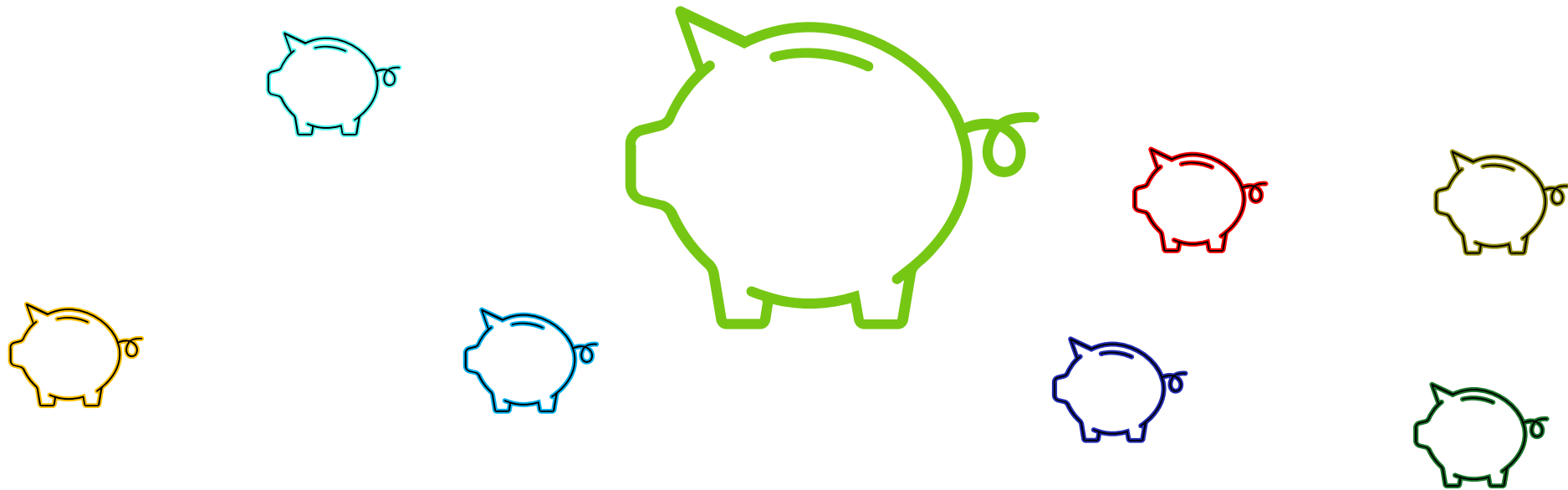
RFQs and Bidding

- Ensure the town's bid for the project properly scopes the necessary Mitigation measures and Contingency measures.
- Soil and Groundwater Management Plan.
- Special Provisions for management of contaminated soils and/or groundwater.
- All contracted work under an SRF loan must meet federal crosscutter requirements

Construction

- Health and Safety Plan
- Stockpiling/disposal of soil
- Treatment of pumped groundwater
- Oversight by an environmental professional
- Materials upgrades
- Unexpected contamination

Funding



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Questions?

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