

Project Name: Villages at Heritage Springs

Client Name: Townlot Fee, LLC

Client Contact: Jackson Washburn, President

Contact Information:

Townlot Fee, LLC, c/o BreitBurn Land Company

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Regulatory Oversight: City of Santa Fe Springs Certified Unified Program Agency (CUPA)

General Project Description and Services Provided

Feasibility Study:

- ◆ Performed a feasibility study for determining whether the redevelopment of a 54-acre site with a 100-year oil production history is appropriate for commercial or residential use.
- ◆ Provide costs and options for remediation for both commercial and residential cleanup scenarios.

Phase II Characterization:

- ◆ Perform Phase II characterization of over 130 areas of concern including former sumps, aboveground storage tank farms, and numerous small (third party) surface uses including equipment storage, light machining, and other light industry.
- ◆ Prepare a Preliminary Endangerment Assessment (PEA) Report with a risk assessment using the PEA guidance that also includes a conceptual corrective action plan.
- ◆ Provide technical information to insurance companies to procure environmental insurance, both Pollution Legal Liability (PLL) and Cost Cap for Remediation.
- ◆ PEA report was reviewed and work overseen by the City of Santa Fe Springs CUPA and the risk assessment was reviewed by the Office of Environmental Health Hazard Assessment (OEHHA) under a Memorandum of Understanding with the City of Santa Fe Springs to provide technical review for risk assessments submitted to the CUPA.



Remedial Action Plan:

- ◆ Prepare a Remedial Action Plan including cleanup level evaluation – reviewed and approved by both the CUPA and OEHHA.
- ◆ Perform site remediation of 39 areas of concern by excavating areas ranging in size from 15 feet by 15 feet by 20 feet deep to 140 feet by 140 feet by 18 feet deep.
- ◆ Remove approximately 76,000 tons of hydrocarbon-impacted soil and transport via truck under manifest procedures to a Waste Management facility (landfill).

Risk Assessment:

- ◆ Prepare risk assessments per OEHHA guidance to evaluate confirmation sample results and confirm that remaining soil left onsite meets risk parameters for residential redevelopment.

Preparation of Closure Report:

- ◆ Waterstone prepared a closure report detailing all aspects of investigation and remediation.





Total Costs (including fee rendered for the services):

Excavation, transportation and disposal (separately billed by excavation contractor to client):

\$3,585,732.88

Laboratory, Expenses, and Professional Fees (Includes Feasibility Study, Phase II Site Characterization, and Remediation):

\$1,221,000

Total Project Cost: \$4,806,732.

Waterstone's Fees: \$836,000

Original Budget:

- ◆ Feasibility Study: \$39,000
- ◆ Phase II Site Characterization: \$658,137
- ◆ Remediation:
 - ◆ \$3,263,765 (excavation, transportation and soil disposal)
 - ◆ \$523,863 (Waterstone oversight, lab fees, equipment, expenses)

Period of Performance:

- ◆ April 2003 to Present



Waterstone Key Projects—Villages at Heritage Springs



Problems and Solutions

- ◆ Large-scale remediation required to be completed during night hours.
- ◆ Due to elevated concentrations of VOCs in soil gas, vapor barriers installed at each property.

Results and Final Product

- ◆ Project received case closure from the City of Santa Fe Springs following years of investigation and remediation.

Client Benefits

- ◆ Project completed prior to and during construction.
- ◆ This is the first significant residential development in this mostly industrial City since the 1960's and is viewed as a transformational development. This was also the first successful attempt to address environmental issues at this property which was considered under- used and had been the focus of numerous unsuccessful proposals for redevelopment in the past.
- ◆ Waterstone personnel were originally involved on this project in the early 1990s and the client benefited from the long history of knowledge, the skilled use of existing data, and Waterstone's relationships with the agencies to speed this project toward its completion.
- ◆ The remediation was completed in 6 months in the field and approximately 80,000 tons of impacted soil was removed. The site is currently being developed with approximately 500 homes and townhomes.

