

# Goals

## Project Action Statement

Project goals include eliminating the public safety hazard associated with flood flows overtopping Clarkson Street. Once sediment has been removed, the project team aims to restore hydrology and habitat diversity to Lee Gulch, creating a vibrant, ecologically diverse natural space for the community.

# How

## Major Design Elements

- Sediment removal within the channel and historic floodplain.
- Realign the channel and incorporate additional sinuosity typical of an alluvial stream system.
- Re-establish a low flow channel to maintain flow during drier periods.
- Lower the banks to increase floodplain access.
- Revegetate the corridor with a diverse, multi-strata, native plant community.

# Implementation

## Construction Equipment

General construction equipment will be used to complete the project activities including:



<Skidsteer

Backhoe>



<Dump truck

Bulldozer>



# Questions

## Contact the Project Team

### Southeast Metro Stormwater Authority

**Website:** [www.semswa.org](http://www.semswa.org)

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**Project Manager:** Jon Nelson

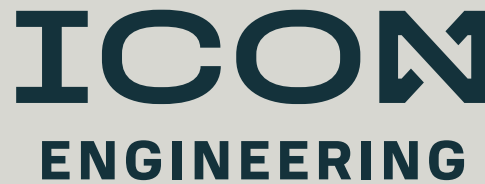
**Email:** [jnelson@semswa.org](mailto:jnelson@semswa.org)



### ICON Engineering

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# Lee Gulch Stream Restoration

## 2024 Stream Rehabilitation Project Preliminary Timeline



Planning & Permitting:  
May 2022 - December 2024



Construction:  
January 2025 - April 2025



Revegetation:  
March 2025 - Fall 2025



Monitoring:  
Fall 2025 + (duration TBD)

# Why

## Project Impetus

Over time, sediment accumulation from storm events have deposited into Lee Gulch, which has reduced flow capacities and degraded the natural stream corridor. Sediment accumulation has also blocked the culvert under Clarkson Street, and has lead to flows overtopping the road during larger storm events, creating a public safety hazard.





# Grading Design

## Channel and Floodplain Updates

Lee Gulch in January 2022 depicting a wide valley lacking vegetation diversity. The current channel is filled with cattails and hosts occasional trees or small shrubs. No defined channel is present in this area, and flow capacity is reduced due to excessive sedimentation at the upstream end along Clarkson Street.



While some trees will be protected in place, tree removals are necessary in the grading area. Containerized tree plantings will be installed to replace trees removed.



The cattail monoculture and excess sediment will be excavated to restore the flow path and return flood flow capacity.



Outside of the channel, topographic variability including mounds and depressions will be added to the overbank areas to mimic natural variability in the landscape and create microhabitats.

# Habitat

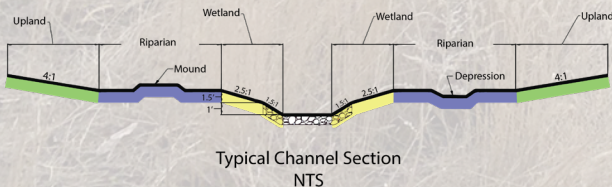
## Project Habitat Improvements



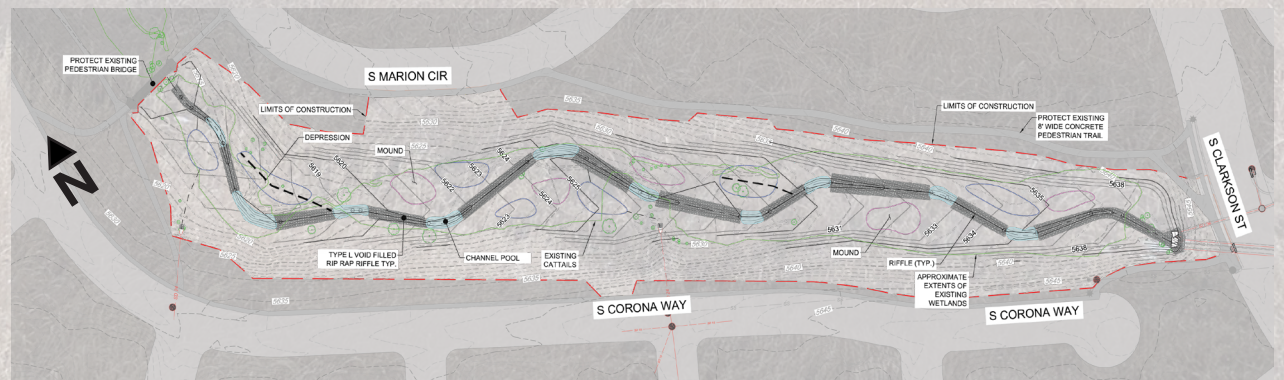
Disturbed areas will be revegetated with native, hydrologically appropriate species to promote biodiversity across all plant strata.



Banks along the revised channel will be lowered to increase floodplain access and provide additional stormwater attenuation during flood events.



Below: Depiction of the proposed Lee Gulch realignment including microtopography and woody vegetation additions.



The revised channel alignment as depicted in the planview drawing above incorporates increased sinuosity, providing additional opportunity for geomorphic stream elements including pools and riffles. Pools provide in-stream habitat variability by creating deep areas of varying temperature and reduced velocity flow. Riffles are shallow, fast-moving segments of stream that provide habitat for fish and invertebrates, and increase water oxygenation.