![NFWF - National Fish and Wildlife Foundation logo]

Willow Creek and Green Valley/Atascadero Creek LiDAR Survey Project *(amended)*

Recipient: Gold Ridge Resource Conservation District
Project Period: 04/05/2021 – 08/31/2022
Award Amount: $20,801.42
Project Number: #8006.22.072096
Matching Funds: $9,960

Summary of Accomplishments

The goal of the project is to carry out LiDAR surveys of areas of the Willow Creek and Atascadero Creek floodplains to generate high-quality elevation datasets. Fish passage bottlenecks exist in both project areas, and are thought to be hindering recovery of coho salmon and steelhead trout in both watersheds. Acquisition of accurate elevation data will facilitate the development of restoration projects to improve passage and fish habitat conditions in both streams.

LiDAR surveys were carried out by NV5 Geospatial, and the Willow Creek data has been converted into a Digital Elevation Model dataset. Ground truthing has confirmed the high accuracy of the data, and in Willow Creek the data is being used to support restoration project development

Project Activities & Outcomes

Activities
- GRRCD: Contracting with NV5 Geospatial and managing consultant tasks, administrative tasks, ground-truthing
- NV5 Geospatial: Drone-based LiDAR data acquisition, ground-based surveys, data processing

Outcomes
- The primary project outcome has been achieved, and we now possess a high-accuracy elevation dataset for each project area. This data is already being used with partner organizations in developing projects to facilitate fish passage and improve habitat in the Willow Creek watershed.

Lessons Learned

The project was carried out per the scope of work and within budget. Ground checking to date has verified the accuracy of the data that was collected, and the Gold Ridge RCD and our partners are now using the data in planning for fisheries habitat restoration and enhancement projects. LiDAR has always been considered a very accurate method for constructing elevation datasets, but this project

has highlighted how accurate low-level, drone-based LiDAR data is, even more so than data collected by fixed-wing aircraft at a higher altitude

Dissemination

The elevation datasets are being provided free of charge to partner organizations and agencies. Distribution of the data also constitutes dissemination of the main lesson learned, as the new elevation data is so much more detailed and accurate than any pre-existing data.

POSTING OF FINAL REPORT: *This report and attached project documents may be shared by the Foundation and any Funding Source for the Project via their respective websites. In the event that the Recipient intends to claim that its final report or project documents contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the Recipient shall clearly mark all such potentially protected materials as "PROTECTED" and provide an explanation and complete citation to the statutory or regulatory source for such protection.*