

# Creek Week 2017/*Citizen Science*

Sacramento San Joaquin Delta Conservancy and hammerdirt



A Preliminary Report

# Survey Results: Arcade Creek

April 29th, 2017-The Event

|                                |                     |
|--------------------------------|---------------------|
| <b>Site Leader</b>             | <b>Bill Templin</b> |
| <b>Location</b>                | Arcade Creek Park   |
| <b>volunteers</b>              | 2                   |
| <b>hammerdirt personnel</b>    | 1                   |
| <b>Survey area (sq meters)</b> | 680                 |
| <b>Stream bank length</b>      | 40m                 |
| <b>Density (pieces/meter)</b>  | 10.7                |
| <b>Total time for survey</b>   | 3 hours             |
| <b>Survey application used</b> | Web form on android |
| <b>Total number of items</b>   | 429                 |
| <b>Total categories</b>        | 54                  |

Creek Week volunteers were gathered at Arcade Creek Park to remove debris from in and around the creek, which flows through the park, and under a Garfield Ave bridge. It is under this bridge that I found Bill Templin, Environmental Scientist, educating a group on water quality monitoring. The group, students from Mira Loma High School, were also assisting in the removal of debris from the creek bed.

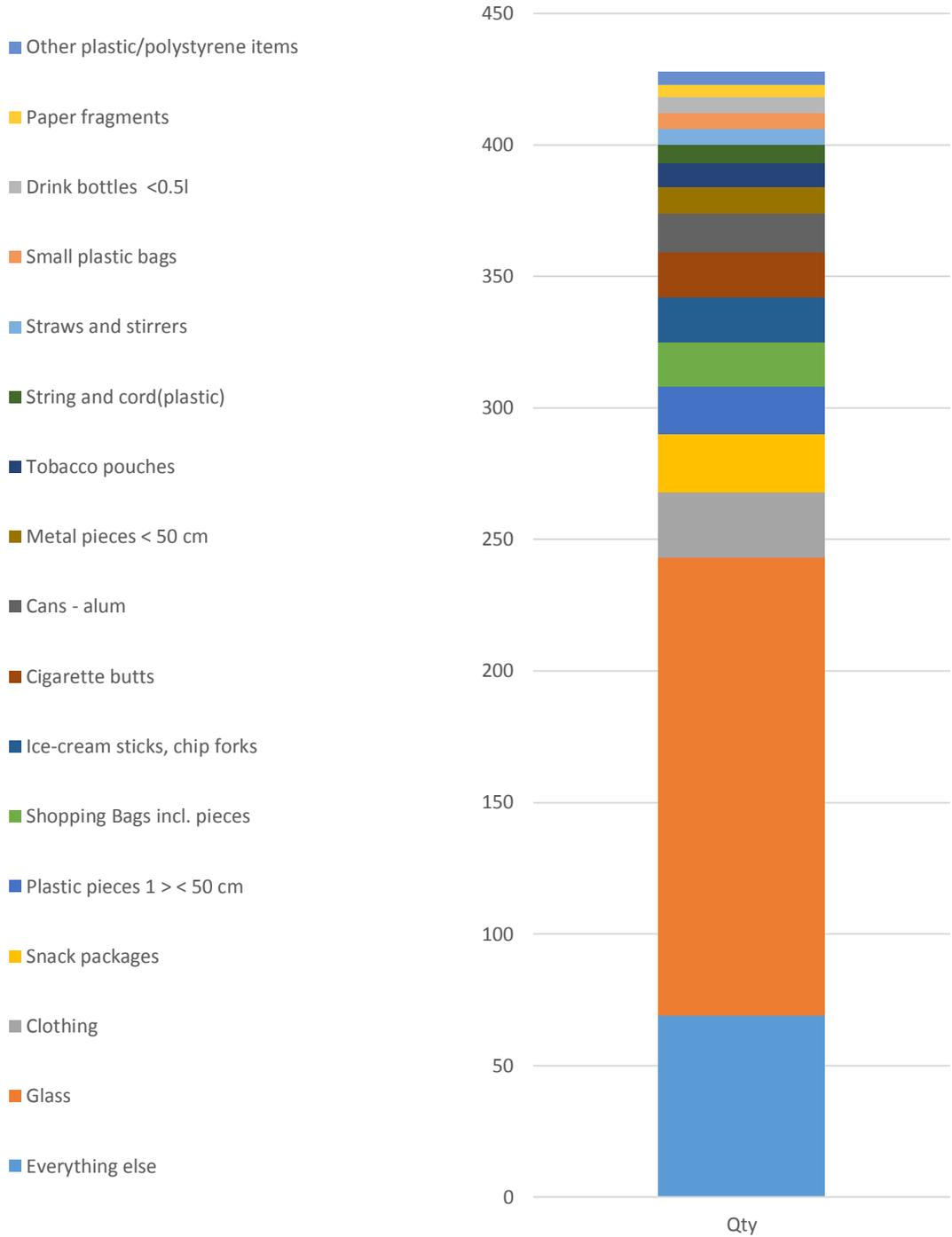
This area, with a variety of features: permanent structure as perimeter boundaries, stormwater outfalls on either side, located downstream from a recreational use parkway, and in a suburban neighborhood, is suitable for monitoring year-round.

The survey area was measured, then the tarp was placed on the ground, then the web form was opened via the link

<https://ee.kobotoolbox.org/x/#YSDa>, next, a photograph was taken of the view downstream to document the debris stranded in the brush from the recent rain events. I demonstrated the debris survey procedure to some of the students and volunteers, while going through the steps of using the web form version of the survey application.

## Arcade Creek Park : trash survey results

### Categories greater than 1% of total



## Comments

The following tables contain suggestions and comments regarding the survey

|   | Could use improvement   | Was adequate | Suggestions   | Comments                         |
|---|---|--------------|---|----------------------------------|
| <b>Equipment: tarp</b>  | hammerdirt tarp was without grid marks  | Functional   | Improve hammerdirt's tarp with recommended markings for item sorting and sizing |                                  |
| <b>Survey app/form</b>  | Eliminate mandatory responses   | Functional   | Sort by conditional responses   | Preload forms on hd cellphones   |
| <b>Equipment: containers/bags/receptacles provided for disposal</b> | A means of transport for heavy and oversized debris that is suitable for rugged terrain |              |   |                                  |
| <b>Personnel: # of people</b>                                       |   | Yes          |   |                                  |
| <b>Actions</b>  |   | Yes          |   | Well organized, and on schedule. |
| <b>Safety</b>   |   | Yes          |   |                                  |
| <b>Protocol</b>   |   | Yes          |   |                                  |
| <b>Outcome</b>  |   | Yes          |   | All objectives were achieved.    |
| <b>Efficiency/Time</b>  | Perhaps more time /people could be allotted for survey                                  | Functional   |   |                                  |

## Survey Site: Arcade Creek Park

Survey Area: Defined by Garfield Ave. Bridge footprint and high water line. (just outside of support columns, on the top and bottom of diagram).

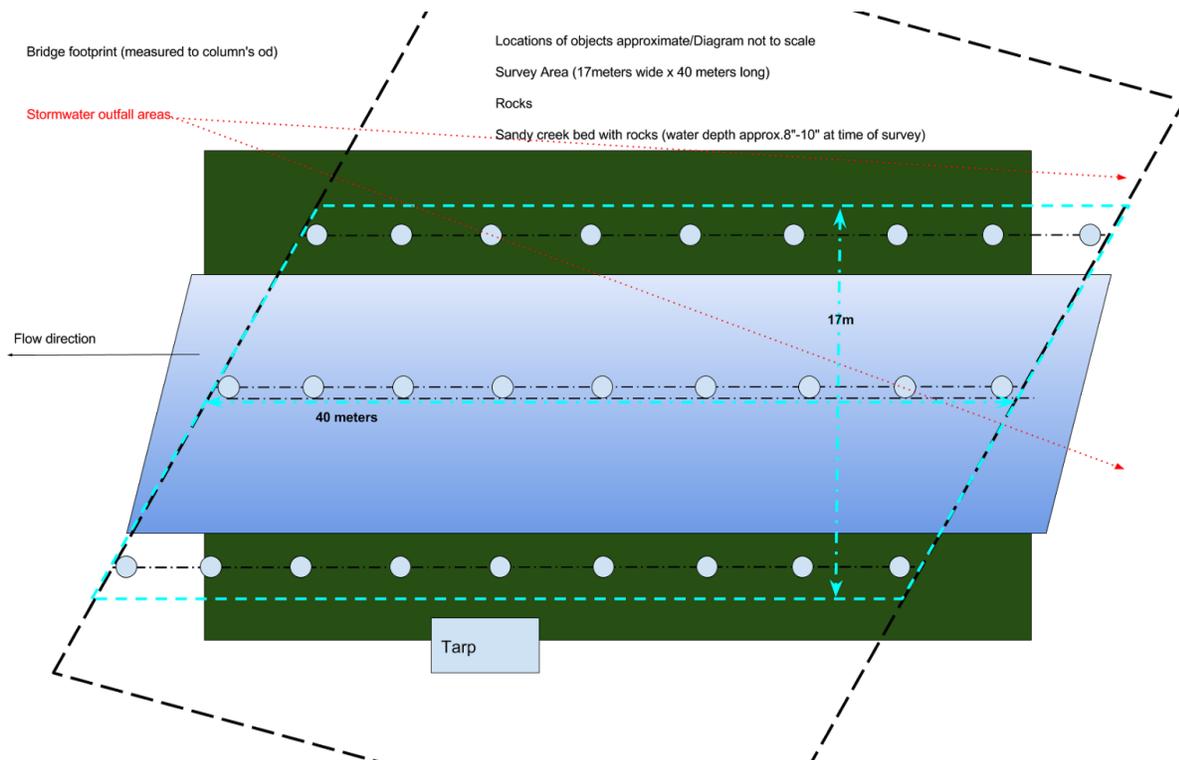


Diagram. Bridge footprint in black dashed lines, survey area in light blue dashed lines, support columns are grey circles.



e Waste from Arcade Creek. Components from phones like this one, will be repurposed for hammerdirt DIY sensor projects later this year.



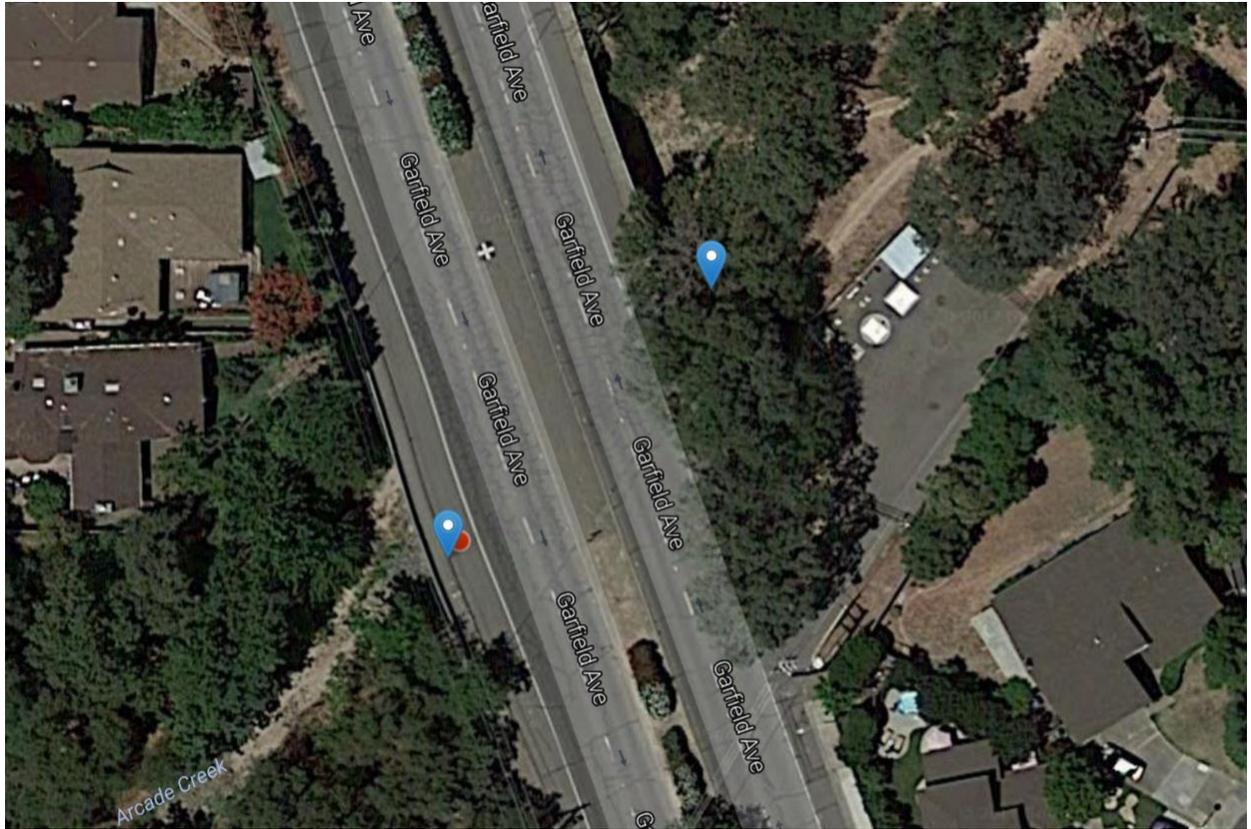
That is a pile of glass from Arcade Creek! (174 pieces) note: hammerdirt tarp was used for the Arcade Creek Park survey the non grid side.



Arcade Creek Park survey, with some appliance parts.



ACP also



Satellite image of Arcade Creek.