

Pond Biosolids Removal and Reuse Project (CIP 13745)

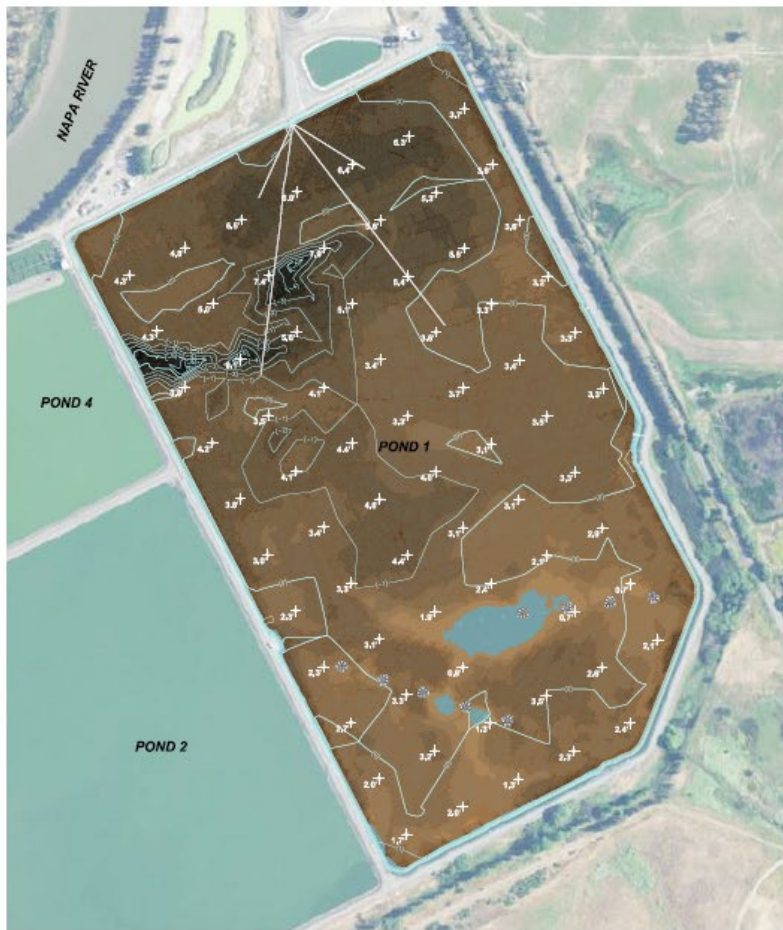


NapaSan Board of Directors Meeting
November 4, 2020

Background

- Recent biosolids removal projects were completed using various methods between 1999 and 2008





NOTES

HORIZONTAL DATUM: NAD83 STATE PLANE CALIFORNIA ZONE 2 (US FEET)
VERTICAL DATUM: PER ULTRASONIC LEVEL GAGE AT NORTHWEST CORNER OF POND 1

DATA SOURCES:

SEA-TECH POND BOTTOM SURVEY, SEPTEMBER 20, 1988
(DEPTH MEASUREMENTS CONVERTED TO SURVEY DATUM ASSUMING 11.1' DEPTH
CORRESPONDS TO LEVEL GAGE READING OF 0.0')

SLUDGE BATHYMETRY DATA RECORDED BY NAPASAN OPERATIONS STAFF USING
LOWRANCE LCK-25C

POND LEVEL WAS CONSTANT AT 33 INCHES (7.75 FEET) DURING SLUDGE BATHYMETRY SURVEY

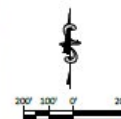
ESTIMATED TOTAL SLUDGE VOLUME = 650,000 CY (403 ACRE FEET)

LEGEND

- 1.2' SLUDGE THICKNESS SPOT MEASUREMENTS
- CONTOURS OF POND BOTTOM SURFACE ELEVATION
- ⊗ AERATOR LOCATIONS AS OF 5/20/17

SLUDGE THICKNESS BANDING KEY

0.0' - 1.0'
1.0' - 2.0'
2.0' - 3.0'
3.0' - 4.0'
4.0' - 5.0'
5.0' - 6.0'
6.0' - 7.0'
7.0' - 8.0'
8.0' - 9.0'
9.0' - 10.0'
10.0' - 11.0'
11.0' - 12.0'



POND SLUDGE DREDGE
(CIP 13745)
**POND 1 BATHYMETRY SURVEY
CALCULATED SLUDGE THICKNESS**
DECEMBER, 2017



Biosolids Removal

- Remove biosolids to elevation 1.0 ft.
- Priority 1:
 - Northern 1/3 of pond
- Priority 2:
 - Middle 1/3 of pond





Project Costs

Total Budget	\$2,337,150
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Item	Cost
Design	\$39,275
Construction Contract	\$2,000,000
Construction Management, Inspection, ESDC	\$205,135
Estimated Staff Time and Lab Analyses	\$50,000
Total:	\$2,294,410



Project Accomplishments

- Removal of high priority biosolids from Pond 1
- Learned better ways to implement the project next time
- Team effort resulted in a successful project

Napa Sanitation District harvests Napa's sewage sludge for fertilizer

Barry Eberling Aug 14, 2020 Updated Sep 19, 2020











Recommendation

- Adopt Resolution accepting completion and authorizing General Manager to file the Notice of Completion at the Office of the Recorder, Napa County, California for the Pond Biosolids Removal and Reuse Project (CIP 13745).