

PROGRAM OF THE MONTH | SEPTEMBER 2024



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# **Turf Renovation Projects**

# South Valleys soccer fields



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# Soccer field struggles:

- Clay soils
- High alkalinity
- Added salt content from effluent water
- High use (March-October)
- Soil compaction
- Poor germination



# We needed a new approach!

- Teamed with Full Circle Soils and Compost to create a plan
- Soil tested the fields
- Full Circle reviewed tests and created a plan of attack to balance issues with long term nutrients
- Began with lower soccer field, May/June 2023



# Main take aways from soil test:

- Calcium is most deficient nutrient
- Sodium content is high
- Boron content is high
- Minerals are out of balance



# What is our plan?





## New approach:

- Full Circle created a custom blend that targeted the major imbalances in the soil
- Applied calcium nitrate 15.5-0-0 at 200 lbs. per acre 2x year. This is the least harmful fertilizer to soil biology since it contains only growth nitrogen and calcium, which is needed in the soil
- Eliminated all other synthetic fertilizers
- Divided soccer field in two, so half would still be available to public
- Aerated field and over-seeded with 500 lbs. of 80/20 Rye/Bluegrass
- Top-dressed with custom blend
- Closed off for 30 days
- Watered accordingly

# Custom blend

- 5.5 acres
- 60 cubic yards
- 45 yards compost
- 29,122.5 lbs. minerals/nutrients
- Approx 11 yards/acre
- 1 yard = 4000 sq ft.
- 2750 lbs. soft rock phosphate powder
- 1650 lbs. Natural Sulphur
- 11,000 lbs. Gypsum
- 11,000 lbs. High Calcium AG limestone
- 550 lbs. Fast release 15.5-0-0 calcium nitrate
- 440 lbs. Manganese sulfate powder
- 55 lbs. Copper sulfate powder 55
- 1650 lbs. Magnesium carbonate
- 27.5 lbs. Mycorrhizae
- Cost per acre = \$1798.56



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**Google maps photo taken in June 2023. East field had just been reopened after a month and west field had just been top-dressed.**





# October test results!

- Better balance between minerals
- Increased base calcium saturation level
- Boron and sodium came down
- Increased humus



# Soil health is an ongoing process, and it takes time!





## Benefits of using custom blend vs. synthetic fertilizer:

- Long term results vs. short term results
- Water savings using compost
- Site specific fertility
- Sustainable turf management using locally recycled products
- Less salt from chemical fertilizers
- Over-all better for the environment



## Lower soccer field rehab May 2024

- March test revealed mineral levels are beginning to balance
- Full Circle Soils and Compost created more cost-effective blend per my request:
  - ✓ 60 yards of compost- adding organics into the soil to help combat sodium
  - ✓ 11,000 lbs. gypsum- help improve soil structure
  - ✓ 27.7 lbs. mycorrhizae- attaches to the roots and expands absorption area for nutrient processing
- Aerated entire soccer field and over-seeded with 500 lbs. of 80/20 Rye/Bluegrass
- We did not close off soccer field



## Upper soccer field rehab May/June 2024

- March test revealed higher salt levels and pH than the lower soccer field
- Full Circle Soils and Compost created a specialized blend to start balancing the soil
- Fenced off half of the field and aerated, over-seeded with 80/20 Rye/Bluegrass and top-dressed with blend
- Repeated on west side of field 30 days later



# Results!

- Lower soccer field has improved grow in rates despite constant foot traffic from leagues and dog park users
- Upper field has experienced a hard summer with several irrigation issues, however recovery time seems improved from last summer
- We are awaiting soil test results in October



## Overall picture for soccer fields:

- Price of 2x year regular fertilization program- \$3,254
- Price of 2x year using calcium nitrate fertilizer- \$748
- Cost of custom blend on 5.5 acres- \$9,892
- Cost of compost on 5.5 acres with gypsum and mycorrhiza added- \$4,688.71
- Cost of compost for 5.5 acres- \$2,300
- Variety of options available depending on budget
- Savings comes in long term health of soil and the environment



# Link Piazzo Dog Park turf repair



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# Overview

- 200-year flood event occurred on July 21, 2024
- Had to wait for turf to dry out before we could attempt removal of dirt (fine clay alkaline soil)
- Began dirt removal July 30, 2024
- Removed approximately 70 yards of material over 5 days
- Rented a sweeper to try and remove remaining dirt August 6<sup>th</sup> and 7<sup>th</sup>
- Triple aerated affected area on August 8, 2024
- Over seeded with 150 lbs. of 80/20 Rye/Bluegrass blend
- Fertilized with 150 lbs. 15-15-15
- Top-dressed with 10 yards of humus
- Seed germination noticeable August 16, 2024
- Link Piazza officially re-opened on September 3, 2024



**July 22, 2024**



**3-8" of mud and debris  
covered 1/3 of the dog park**



Once we were able to clear the gate we began working our way to the turf.





July 30, 2024





**We moved  
approximately 70 yards  
of dirt off the turf and  
surrounding pathways!**



August 8, 2024  
-10 yards humus  
-150 lbs. 80/20  
-150 lbs. 15-15-15







# Germination!! August 16, 2024





**July 22, 2024**



**August 27, 2024**





September 13, 2024



# Rancho San Rafael Great Reno Balloon Race turf recovery



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# Overview

- Water was shut off to the “overflow” parking area on August 28<sup>th</sup>
- Last mow was August 28<sup>th</sup> to keep grass a little taller for the days to come
- Balloon Race set-up began September 3<sup>rd</sup>
- The turf is used as a parking area and vendors, sani-huts, dumpsters and main roadways are set up
- Over 120,000 people attend the event
- We had a pump issue and were not able to get water on until Tuesday, September 10<sup>th</sup>
- Turf responded quickly to the water, due to consistent yearly maintenance, including aeration of the high use areas, over-seeding with hearty pasture grass mixes and top-dressing with humus
- Water off for car show September 25-28, aeration to follow



# August 23, 2024



# September 3, 2024





By September 6<sup>th</sup> the turf is pretty beat up!



**September 17<sup>th</sup>, on the road the recovery!**



# Thank you

Any questions?



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