Tending the Soil to Tend the Plants
LASMM. Chapter of CNPS March 8, 2022

References and Suggested reading/watching
Videos noted are generally from no-till conferences*

Las Pilitas mycorrhizae pages:
Overview: https://www.laspilitas.com/classes/classnot.htm
Mycorrhizae: https://www.laspilitas.com/easy/easyroots.htm
Oak mycorrhizae: https://www.laspilitas.com/classes/mycorrih.htm
Frankia & natives: https://www.laspilitas.com/classes/Frankia.html

San Onofre Restoration:
http://www.landandwater.com/features/vol42no4/vol42no4_1.html
also Reifner et al. 1998 (includes work by Tree of Life)

Other Inspirations:
David Montgomery, Gabe Brown, Dr. Christine Jones, Dr. Kris Nichols, Ray Archuleta, Dr. Jill Clapperton, Dr. Dwayne Beck, Jay Fuhrer, Dr. James White, Jena Experiment

Suggested Reading:
Finding The Mother Tree, Suzanne Simard, and Entangled Life, Merlin Sheldrake

Suggested Videos:
Dirt, Growing a Revolution, The Hidden Half of Nature, David Montgomery
https://www.youtube.com/watch?v=FZ22IV2tDvs

Dr. Christine Jones video Community Tipping Points, also recommend her talks on youtube listed below, as her concepts form much of the basis for this talk: https://youtu.be/NqV1b4ps-sE
The Living Carbon Pathway, https://www.youtube.com/watch?v=C3_w_Gp1mLM (soil starts at 11:00)

Ray Archuleta video (Living Web Farms) showing slake test no-till vs organic tilled; recommend this series. I did not screen capture the organic vs. no-till: seeing is believing. Ray explains complex concepts in plain english. Some of his videos show live carbon emissions during spring.
https://youtu.be/nNMdWnfjs8s

Dirt to Soil, Gabe Brown, the quality isn’t perfect in the following youtube, but it is very understandable
https://www.youtube.com/watch?v=ExXwGkJ1oGI
Dr. Kristine Nichols video Soil Biology Builds Resilience in Organic Systems
https://youtu.be/hC9mGS_glRk. Technical but comprehensive video by the scientist who took the original pictures of glomalin and other.

Jena Experiment:
http://the-jena-experiment.de/

Dr. James White, Endophytes, Rhizophagy (Plant roots eat bacteria!): his work is also informed by this study: Paungfoo-Lonhienne C et al. 2010.

Turning the Table: Plants Consume Microbes as a Source of Nutrients.
https://youtu.be/yMr3_tGeAu8

Plant-Soil Interactions in Temperate Cropping Systems: Ehrman-Ritz, 2014, 1+1=3 figure


Madison M. Dipman , Wallace M. Meyer III, “Type conversion from native California sage scrub to non-native grassland accelerates decomposition processes,” 2019

Root Derived Carbon Sequestration vs. Litter Derived imag
https://ecosoil.co.za/soil-health-principles/soil-building-process/

Films about regenerative agriculture, the first is about regenerative grazing:
Carbon Cowboys (available on youtube)
https://carboncowboys.org/films-top

Kiss the Ground, Netflix
https://kisstheground.com/

*Video Enhancer for Firefox helps with speeding up videos precisely

Answers to questions:
1) Any mulch that hasn’t been composted with manure is ok. I like shredded Redwood for fire zones per Greg Rubin.

2) Draft list of what to plant as seed with your planted natives from pots for SoCal, to be revised. The goal is to get at least 8 families (not just 8 genera) into the mix! More families is better.
Easiest choice: TPF Rainbow Mix, TPF Blue and Gold Mix. This list is also based on availability of larger qtys. of seed. Another option is to base the mix on S&S Seeds Native Erosion Control Mix, then add flowers of choice.

Draft List of Plants to Seed
after planting your native transplants (or before, if you have to wait)

Achillea millefolium
Acmispon glaber
Amsinkia sp.
Bromus carinatus ‘Cucamonga’ or any of the needlgrasses, or Melica sp.
Clarkia unguiculata or C. amoena (S. F. valley)
Cryptantha sp.
Eschscholzia californica or any Eschscholzia
Gilia capitata or G. tricolor
Lathyrus sp.
Layia platyglossa or other Layia (or a different choice from the Asteraceae)
Linum lewisii
Lupinus sp., in small quantities
Phacelia distans, or P. tanacetifolia, P. ciliata
Penstemon sp.