

Residential Maintenance Manuals for Water Smart Landscapes

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Many thanks to: Guy Stivers - Stivers & Associates, Inc.; Linda Eremita, Jason Schmidt, Pam Gibson, Chris Imhoff - TreePeople; Patricia Araiza - City of Los Angeles; Edward Belden - Council for Watershed Health

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BACKGROUND

Through the Elmer Avenue Neighborhood Retrofit Project, the Council and its partners have built the first water-recharging green street in the City of Los Angeles. A one block section of Elmer Avenue in Sun Valley, California was retrofitted with multiple, state-of-the-art stormwater best management practices (BMPs) that reduce flooding, capture runoff, improve water quality, recharge local groundwater supplies, provide green space, and beautify the community. Specific techniques include bio-swarms and sub-surface galleries for infiltration, native drought-tolerant landscapes, smart-irrigation controllers, permeable surfaces, and solar street lights.

Integral to the success and ongoing function of this southern California green street is the role of residents. In addition to receiving training in the maintenance and care of their new landscapes over the course of the project, each resident received a personalized Elmer Avenue Maintenance Manual. The Council developed this comprehensive resource to orient residents to the features, functions, care, and maintenance requirements of their sustainable landscapes. The Elmer Avenue Maintenance Manual is a model for developing a care and maintenance resource that can be used by residents, landscape care professionals, and landscape design professionals.

In addition to the Elmer Avenue Maintenance Manuals, the Council has developed maintenance plans for a small neighborhood park that is maintained by local residents (Old Marengo Park in Altadena) and for a large urban watershed park that is maintained by city staff (Arroyo Seco in Pasadena), along with contributing to the maintenance manuals for multiple parks in the San Gabriel Valley. One of the authors (Ellen Mackey) is co-author of Care & Maintenance of Southern California Native Plant Gardens (2006), a bilingual guide that was developed cooperatively by representatives of Rancho Santa Ana Botanic Garden, California Native Plant Society, and Theodore Payne Foundation, with financial support from the Metropolitan Water District of Southern California.

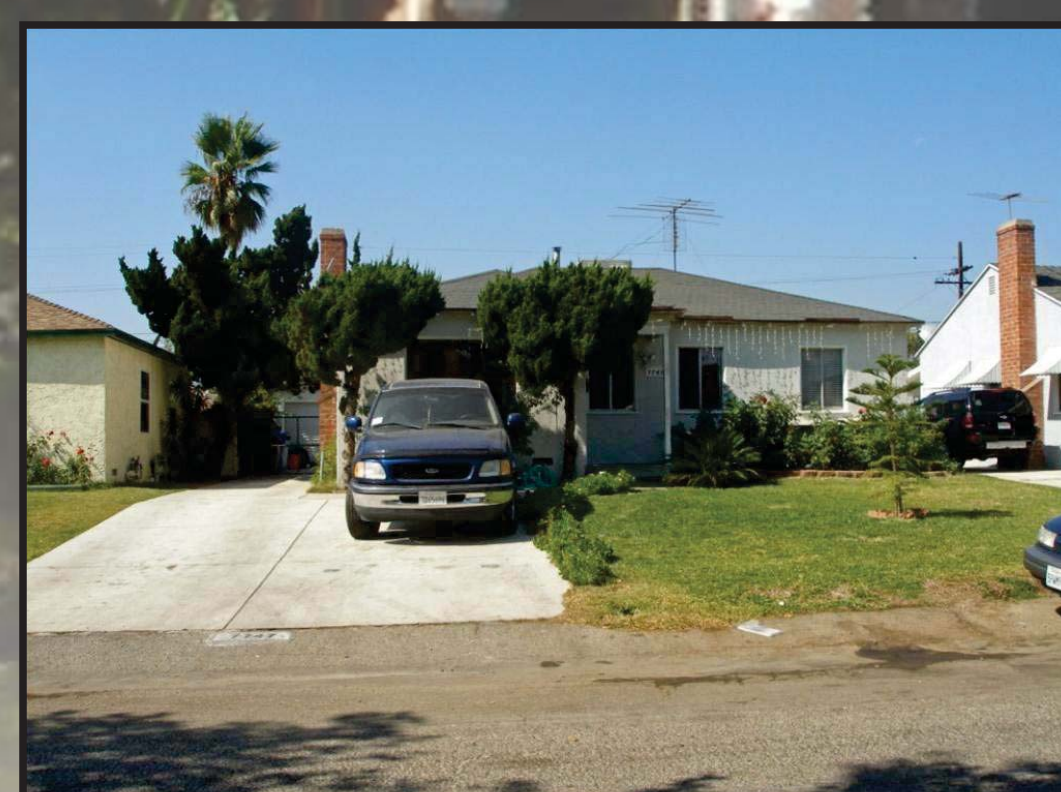


Task	Winter	Spring	Summer	Fall
	January	April	July	October
Soil Care				
1. Fertilization	no	no	no	no
2. Soil replacement	checked	checked	checked	checked
Irrigation equipment				
3. Irrigation system maintenance	weekly	weekly	weekly	weekly
4. Backflow prevention device test	no	no	no	no
Plant maintenance				
5. Check soil moisture	check status	check status	check status	check status
6. Prune dead/dying plants	prune if needed	prune if needed	prune if needed	prune if needed
7. Water plants	prune if needed	prune if needed	prune if needed	prune if needed
8. Check for pests/diseases	prune if needed	prune if needed	prune if needed	prune if needed
Structural elements				
9. Check for leaks	checked	checked	checked	checked
10. Check for damage	checked	checked	checked	checked
11. Check for debris	checked	checked	checked	checked
12. Check for safety	checked	checked	checked	checked
13. Check for aesthetics	checked	checked	checked	checked
14. Check for functionality	checked	checked	checked	checked
15. Check for durability	checked	checked	checked	checked
16. Check for safety	checked	checked	checked	checked
17. Check for aesthetics	checked	checked	checked	checked
18. Check for functionality	checked	checked	checked	checked
19. Check for durability	checked	checked	checked	checked
20. Check for safety	checked	checked	checked	checked
21. Check for aesthetics	checked	checked	checked	checked
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28. Check for safety	checked	checked	checked	checked
29. Check for aesthetics	checked	checked	checked	checked
30. Check for functionality	checked	checked	checked	checked
31. Check for durability	checked	checked	checked	checked
32. Check for safety	checked	checked	checked	checked
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35. Check for durability	checked	checked	checked	checked
36. Check for safety	checked	checked	checked	checked
37. Check for aesthetics	checked	checked	checked	checked
38. Check for functionality	checked	checked	checked	checked
39. Check for durability	checked	checked	checked	checked
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89. Check for aesthetics	checked	checked	checked	checked
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93. Check for aesthetics	checked	checked	checked	checked
94. Check for functionality	checked	checked	checked	checked
95. Check for durability	checked	checked	checked	checked
96. Check for safety	checked	checked	checked	checked
97. Check for aesthetics	checked	checked	checked	checked
98. Check for functionality	checked	checked	checked	checked
99. Check for durability	checked	checked	checked	checked
100. Check for safety	checked	checked	checked	checked

Maintenance Checklist

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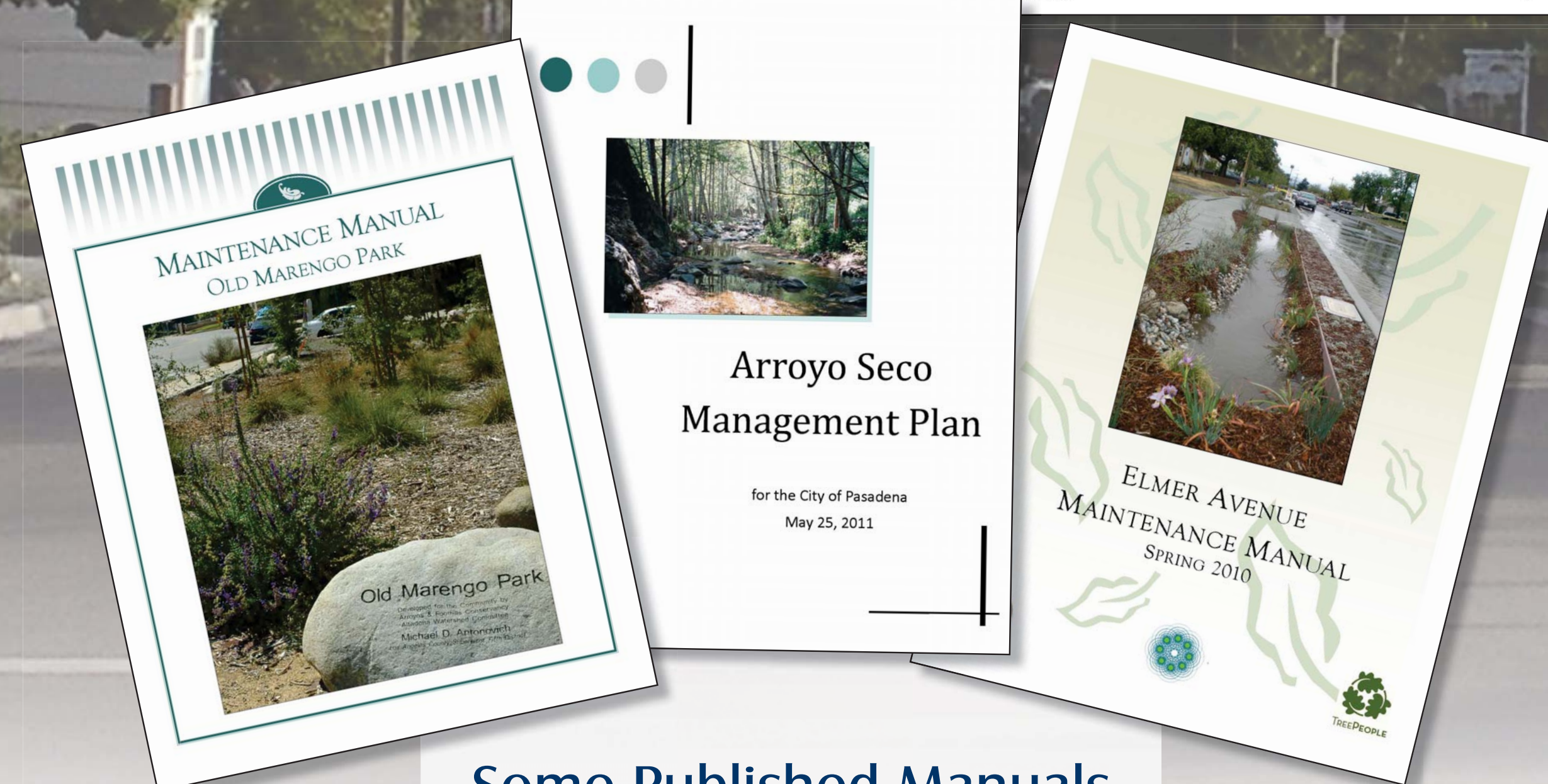
Elmer Avenue Residence BEFORE



Elmer Avenue Residence Immediately AFTER



Elmer Avenue Residence six months AFTER



Some Published Manuals

PROBLEMS

- Outdoor landscaping consumes too much water
- Landscaping fertilizer and pesticides pollute water
- Landscaping monocultures and non-native plants provide inadequate habitat for native animals.
- Gardeners don't know how to maintain native and drought-tolerant landscapes

SOLUTIONS

- Install water conserving, climate-appropriate landscaping and native plants
- Team of professionals including: community organizers, landscape architect, engineers, construction professionals, ecologist, and planners joined to accomplish the project
- User-friendly individualized manual in two languages for each resident to communicate landscape needs for watering and pruning
- Training sessions with on-the-ground assistance several times per year for first few years
- Continue to support the neighborhood as residents become 'watershed managers'