

Tuesday, January 27, 2009 (file cac190)

To: Dan Breedon

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Subj: Changing landscapes

Background: Dealing with landscape change based on past history, potential climate change and mitigation efforts need to be treated in the general plan. I have been searching for literature that attempts to get a handle on changing landscapes in lower montane partially developed regions of Butte County.

Ref A: M. Barbour, B. Pavlik, F. Drysdale & S. Lindstrom, California's Changing Landscape, Diversity and Conservation of California Vegetation, California Native Plant Society, 1993

Ref B: Sunset Western Garden Book, Sunset Books

Ref C: C. Young, What Grows Here, Mountain Gardening in Northern California, North Valley Printing 1992

Ref D: W. Jones & C. Sacamono, Landscape Plants for Dry Regions, Fisher Books, 2000

Ref E: J. Derr, Landscape Fabric yes or no, Fine Gardening Feb 09, p26 (See also articles on invasive plants and potted plants that can be removed in the fire season)

Comments:

1. Ref A and miscellaneous papers in their magazine is a good point to guide readers who have ambitions to change chaparral and forest regions of Butte County. Reference is made to the last major historical drought in 1841-45 with a Central Valley average rainfall of 10 inches embedded in a general drought from 1841-64. In contrast, the 1905-09 average rainfall was 26 inches. Minnich's book on biological invasions places greater emphasis on the southern portion of our state. More esoteric journals such as *Oecologia* (e.g. Hamilton's Coexistence and interference between native perennial grass and non-native annual grasses in California 121:518-26), ecological applications, reforestation ecology and the SAF books await dedicated researchers.
2. Ref B describes "bad new brooms" (3 species of Fabaceae Leguminosae: *Cystus Canariensis*, *C. Scoparius* and *Spartium Junceum*) that are of interest in regions in and around Forest Ranch. There are better behaved brooms. Community based eradication programs are in place. In many cases, people prune and enjoy but don't give away any cuttings/seeds. This is an object lesson in poor propagation practices in the past. Fuel breaks may require foliar applications of a herbicide like professional Roundup with a surfactant to achieve long term control of broom.
3. Reference C from a local author is a good source book that zeroes in on a significant subset of larger lists, typical soil conditions and basic approaches to gardening. The Select Tree website,

Total 3D Landscape software and Sunset CDs can supplement the Ref C lists using Boolean selection sets.

4. Ref D features landscape trees, shrubs, groundcovers vines and succulents that minimize irrigation. Many types of vegetation like succulents are not well suited to our winter climate but much of this material is applicable.
5. Ref E provides a high end view of gardening that features idealized weed control. In many cases weed cloth and associated organic UV protection is not appropriate. Movable potted vegetation is of interest in reducing wildland fire susceptibility. Hybridization is a special case of invasive degradation. A good example in our area is the London Plane Tree and Sycamore.

Potential action item:

1. Consider setting up a study of feasible/cost effective landscape modification for various portions of Butte County.