## QUANTIFYING THE OAK TREE ISSUE

## Prepared by El Dorado Sr. Housing

For El Dorado County BOS Meeting, Jan 13, 2015

## THE PREMISE

- El Dorado County - gross area - 1,100,000 acres ${ }^{(1)}$
- Total acreage of oaks in County - 300,000 acres ${ }^{(2)}$
- Natural regeneration of oaks, acres/yr - Unknown
- Percentage of area in oaks $-27.2 \%$
- Annual increase in urban land use in El Dorado Co., 1984 to $2008{ }^{(1)}-516$ acres
- Annual oak acreage subject to reduction as a result of development $-27.2 \% \times 516=140$ acres
- Estimated annual reduction in oak acreage resulting from development $-70 \% \times 140=100$ acres
- Estimated non-exempt ${ }^{(5)}$ reduction resulting from development $-80 \% \times 100=80$ acres
- Estimated reduction mitigated on site $-25 \% \times 80=20$ acres
- Estimated reduction to mitigate off site $-75 \% \times 80=60$ acres
- Available acreage off site for mitigation $-6,000$ acres ${ }^{(3)}$


## CONCLUSIONS

- We are losing 60 out of 300,000 acres of oak trees per year to development
- It is required to mitigate the impact of this loss
- Natural regeneration of the existing 300,000 oaks, if any, should be used to offset this loss
- Estimated cost of mitigation (without offsetting natural regeneration) - 60 acres $\times 200$ trees/ac $\times \$ 40 /$ tree $=\$ 480,000 / \mathrm{yr}$.


## SUGGESTIONS

- Determine in-lieu fee on a per-tree basis as well as on the per-acre approach
- Example, based on above estimate of mitigation costs $-\$ 8,000 /$ acre or $\$ 8 /$ inch of tree diameter ${ }^{(4)}$
- Developers should be given the option of using either basis for the in-lieu fee calculation
(1) The El Dorado County Economic and Demographic Profile, 2010-2011
(2) Oaks 2014 - The Status and Future of Oaks in California, California Oak Foundation
(3) It was stated at the Oct 7, 2014 BOS meeting that the County has a 6,000 acre conservatory which costs $\$ 70 \mathrm{k} / \mathrm{yr}$ to operate and manage
(4) Assume an average diameter of 5 inches per tree
(5) Exempt acreage includes agriculture, fire protection, and public facilities



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## Quantify the Oak Tree Issue

| El Dorado County | $\mathbf{1 , 1 0 0 , 0 0 0}$ | Acres |
| :--- | ---: | :--- |
| Oak Tree Acreage | $\mathbf{3 0 0 , 0 0 0}$ | Acres |
| Estimated Annual Regeneration | Unknown | Acres $/ \mathrm{Yr}$ |
| Annual Increase in Urban Land Use | 516 | Acres $/ \mathrm{Yr}$ |
| Estimated Annual Reduction in Oaks | $\mathbf{1 0 0}$ | Acres $/ \mathrm{Yr}$ |
| Non-Exempt Reduction | $\mathbf{8 0}$ | Acres $/ \mathrm{Yr}$ |
| On-Site Mitigation | $\mathbf{2 0}$ | Acres $/ \mathrm{Yr}$ |
| Off-Site Mitigation | $\mathbf{6 0}$ | Acres $/ \mathrm{Yr}$ |

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