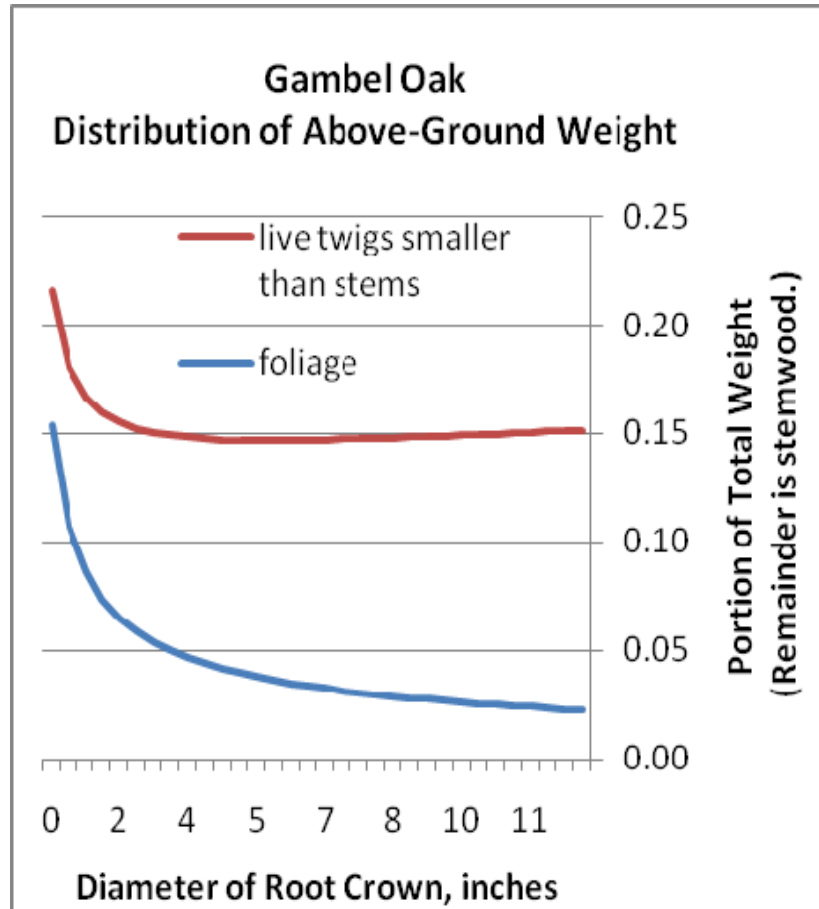


Shrub Photos, Oak Only

The following photos of oak fuel loads come from the Pacific Northwest Research Station's website, <http://depts.washington.edu/nwfire/dps/>. The site numbers match. The pictures are duplicated here.

Suggestions for evaluating oak fuel load:

- Focus on the portion of the site where sampling occurred, which is behind the 6' tall sign.
- Consider both plant size and density. The data table for each photo includes percent crown closure for tall stems.
- For Colorado smoke permits, please show all oak weight as shrubs.



Most of a large living oak's weight is stemwood that may not burn readily. The more flammable foliage and live branches weigh less. The weight distribution may be relevant to estimating what percent of a site's oak will **consume**. The graph above is one estimate of how an oak's weight is distributed (Source of equations: http://www.fs.fed.us/ne/global/pubs/books/dia_biomass/index.html, tables, citing Clary and Tiedemann 1987). See also the tables below for crowns only.



site GO-02

Standing dead trees: 0% of stems
Crown closure of stems > 4.5' tall: 10%

**Oak Weight
total 1.58 t/ac**

stems < 4.5' tall	0.01 t/a
>4.5' tall, dead	0.21 t/a
> 4.5' tall, live	1.36 t/a

Oak Average Height

stems < 4.5' tall	3.5'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	none

Oak Crown* Only

>4.5' tall, < 2" dbh	0.55 t/a
> 4.5' tall, > 2" dbh	0 t/a

* Foliage and live branches



site GO-01

Standing dead trees: 100% of stems
Crown closure of stems > 4.5' tall: 0%

**Oak Weight
total 2.95 t/ac**

stems < 4.5' tall	0.77 t/a
>4.5' tall, dead	2.18 t/a
> 4.5' tall, live	0 t/a

Oak Average Height

stems < 4.5' tall	2.1'
>4.5' tall, < 2" dbh	7'*
> 4.5' tall, > 2" dbh	13'*

* All are dead

Oak Crown* Only

>4.5' tall, < 2" dbh	0 t/a
> 4.5' tall, > 2" dbh	0 t/a

* Foliage and live branches



site GO-03

Standing dead trees: 4% of stems
Crown closure of stems > 4.5' tall: 0%

**Oak Weight
total 4.46 t/ac**

stems < 4.5' tall	1.69 t/a
>4.5' tall, dead	0.03 t/a
> 4.5' tall, live	2.73 t/a

Oak Average Height

stems < 4.5' tall	1.4'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	12'

Oak Crown* Only

>4.5' tall, < 2" dbh	0.25 t/a
> 4.5' tall, > 2" dbh	0.43 t/a

* Foliage and live branches



site GO-04

Standing dead trees: 3% of stems
 Crown closure of stems > 4.5' tall: 30%

Oak Weight
total 11.28 t/ac

stems < 4.5' tall	1.41 t/a
>4.5' tall, dead	0.35 t/a
> 4.5' tall, live	9.51 t/a

Oak Average Height

stems < 4.5' tall	3.3'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	16'

Oak Crown* Only

>4.5' tall, < 2" dbh	0.45 t/a
> 4.5' tall, > 2" dbh	1.92 t/a

* Foliage and live branches



site GO-06

Standing dead trees: 24% of stems
 Crown closure of stems > 4.5' tall: 80%

**Oak Weight
 total 15.23 t/ac**

stems < 4.5' tall	0.34 t/a
>4.5' tall, dead	1.94 t/a
> 4.5' tall, live	12.95 t/a

Oak Average Height

stems < 4.5' tall	1.3'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	11'

Oak Crown* Only

>4.5' tall, < 2" dbh	2.08 t/a
> 4.5' tall, > 2" dbh	1.70 t/a

* Foliage and live branches



site GO-05

Standing dead trees: 27% of stems
 Crown closure of stems > 4.5' tall: 63%

**Oak Weight
 total 15.67 t/ac**

stems < 4.5' tall	0.37 t/a
>4.5' tall, dead	2.34 t/a
> 4.5' tall, live	12.95

Oak Average Height

stems < 4.5' tall	1.1'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	9'

Oak Crown* Only

>4.5' tall, < 2" dbh	3.3 t/a
> 4.5' tall, > 2" dbh	0.56 t/a

* Foliage and live branches

t/a



site GO-07

Standing dead trees: 43% of stems
 Crown closure of stems > 4.5' tall: 68%

Oak Weight
total 29.88 t/ac

stems < 4.5' tall	1.06 t/a
>4.5' tall, dead	6.18 t/a
> 4.5' tall, live	22.64 t/a

Oak Average Height

stems < 4.5' tall	1.7'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	17'

Oak Crown* Only

>4.5' tall, < 2" dbh	0.03 t/a
> 4.5' tall, > 2" dbh	4.69 t/a

* Foliage and live branches



site GO-08

Standing dead trees: 40% of stems
 Crown closure of stems > 4.5' tall: 64%

Oak Weight
total 31.22 t/ac

stems < 4.5' tall	0.45 t/a
>4.5' tall, dead	3.59 t/a
> 4.5' tall, live	27.19 t/a

Oak Average Height

stems < 4.5' tall	1.6'
>4.5' tall, < 2" dbh	7'
> 4.5' tall, > 2" dbh	15'

Oak Crown* Only

>4.5' tall, < 2" dbh	0.41 t/a
> 4.5' tall, > 2" dbh	5.16 t/a

* Foliage and live branches



site GO-09

Standing dead trees: 20% of stems
 Crown closure of stems > 4.5' tall: 45%

Oak Weight
total 31.55 t/ac

stems < 4.5' tall	0.10 t/a
>4.5' tall, dead	1.72 t/a
> 4.5' tall, live	29.73 t/a

Oak Average
Height

stems < 4.5' tall	2.1'
>4.5' tall, < 2" dbh	10'
> 4.5' tall, > 2" dbh	21'

Oak Crown* Only

>4.5' tall, < 2" dbh	1.39 t/a
> 4.5' tall, > 2" dbh	7.80 t/a

* Foliage and live branches