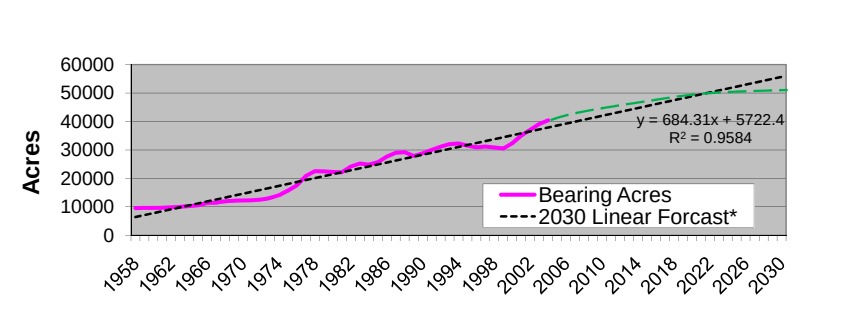
Vineyard development projections

- The General Plan projection was based on Ag Commissioner data ("bearing acres" from 1958-2004 crop reports)
- It assumed that the pace of development will gradually slow, but 10,000 to 12,500 acres will be developed between 2005 and 2030
- This translates into 400-500 ac/year in the early years, and less in the out years (6,000 – 7,500 acres between 2005 and 2020).



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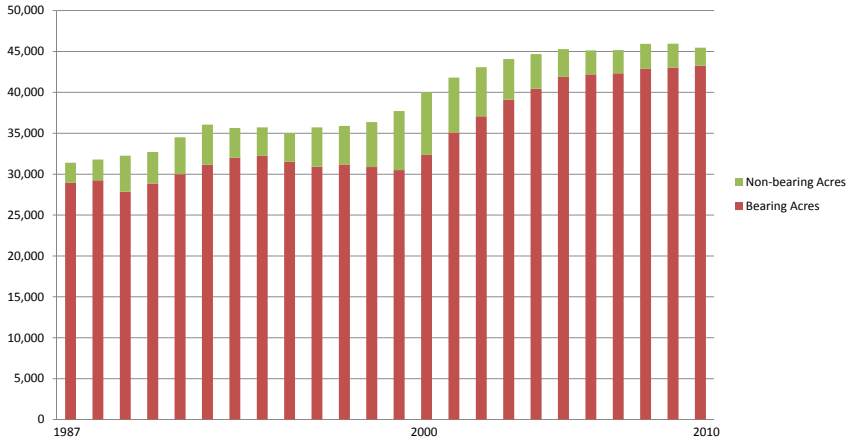
Vineyard development projections

Taking a closer look at bearing & non-bearing acres* over time…. The growth curve seems more gradual than it has been in the past (non-bearing acres include replants & new vineyards).



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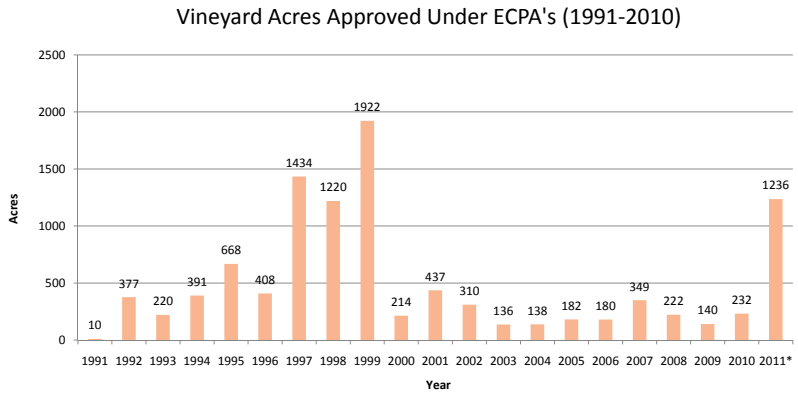
*Crop report data

Vineyard development projections

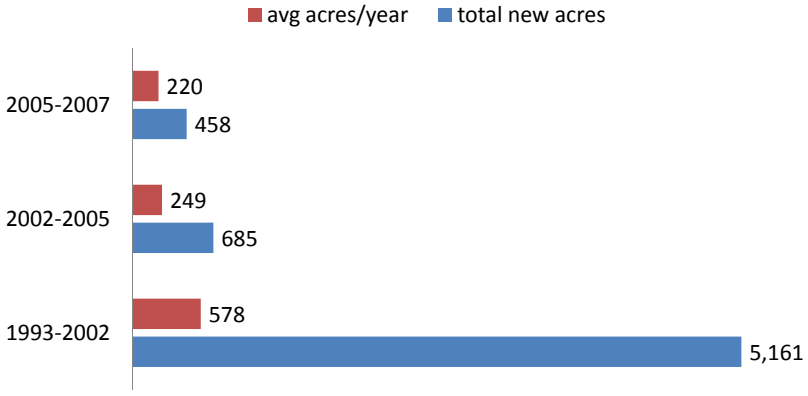
Vineyard ECP approvals on slopes > 5% 2000-2011 support this notion of slower growth since the year 2000±



* Approximately 1236 acres are projected for approval in 2011. This projection does not include Rogers DEIR (160 acres)

Vineyard development projections

A GIS analysis of actual vineyard acres added 1993-2007* also supports this notion of slower growth since the year 2000±



*based on analysis of aerial photographs; does not include approved but un-built projects

Vineyard development projections

Conclusions:

- There is evidence that the rate of vineyard approvals and the rate of vineyard construction is less than projected in the General Plan
- A more robust projection, taking into account economic factors and development constraints is clearly warranted
- In the meantime, the data about acreage approved per year and the GIS analysis of aerial photos suggests we can safely assume 250-300 acres/year on average in the near term
- We can also use the GIS analysis of aerial photos and the vegetation data layer to project the impact of new vineyards on land cover types

Vineyard development projections

Background: to analyze the impacts of projected vineyard development in the General Plan, the EIR developed four hypothetical scenarios (because the location of future vineyard development is unknown)

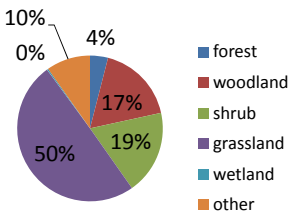
- One scenario was designed to be consistent with the Water 2050 study and put 75% of the growth in the Napa River Basin
- One scenario was designed to test "worst case" impacts on domestic water supply watershed and was concentrated in the eastern hills
- One scenario was designed to test "worst case" impacts on timberland and was concentrated in timberland areas

(The fourth scenario was designed to test impacts on slopes of >35%, a policy idea that was rejected, so this scenario can be ignored)

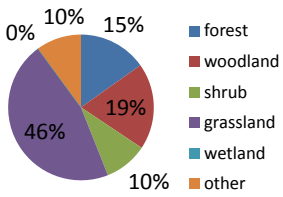
None of these scenarios were considered likely outcomes, and we think it's possible to use our GIS data to develop a more reasonable projection of land cover types that will be impacted by vineyard development in the future.

Vineyard development projections

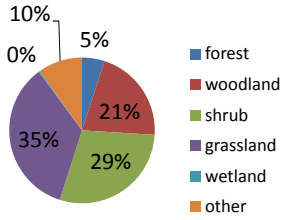
Relative impacts to land covers by vineyard development 1993-2002*



Relative impacts to land covers by vineyard development 2002-2005*



Relative impacts to land covers by vineyard development 2005-2007*

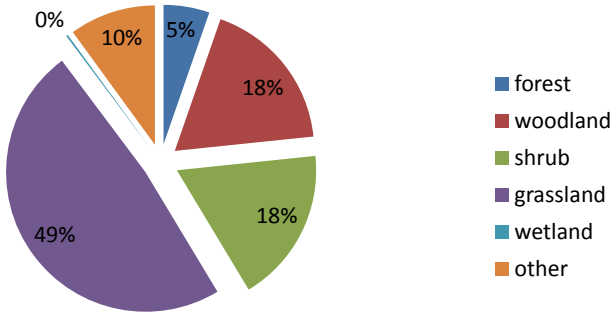


Impacts by land cover type have been relatively constant over time. ("Other" is mostly developed areas.)

*based on GIS analysis of vegetation data layer

Vineyard development projections

Relative impacts to land covers by vineyard development 1993-2007*

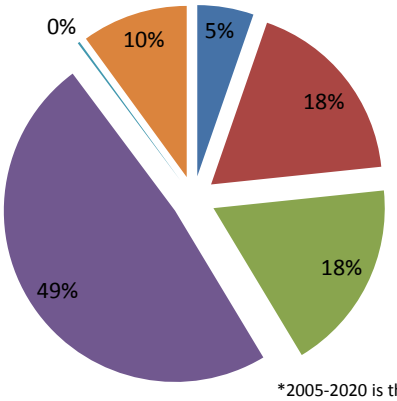


*based on GIS analysis of vegetation data layer

This proportionality of impacts by land cover type can be applied to the projected development.

Vineyard development projections

Vineyard development projections by land cover type
2005-2030 & 2005-2020*



	2005-2030	2005-2020*
forest	375 Ac	225 Ac
woodland	1,350 Ac	810 Ac
shrub	1,350 Ac	810 Ac
grassland	3,675 Ac	2,205 Ac
wetland	18 Ac	9 Ac
other	750 Ac	450 Ac
Total:	**7,500 Ac**	**4,500 Ac**

*2005-2020 is the time period of the Climate Action Plan. Totals do not include vegetation removed for commercial, residential, or industrial development.