

# UNSUSTAINABLE DENSITIES

## Environmental Impacts Calculator II

### Pulled from Sierra Club Website

*Poll Announced to Predict Densities Used in Environmental Impacts Calculator III*

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[Sierra Club Density Categories Index](#)

The Sierra Club is apparently continuing to determine the most appropriate way to respond its use of radically high population densities in the two recent versions of its "Environmental Impacts Calculator."

**ENVIRONMENTAL IMPACTS CALCULATOR I:** When it was originally unveiled on the Sierra Club website on June 18, the "Environmental Impacts Calculator" allowed visitors to compare various factors at a user selected population density to those of what it called "Urban Efficient" and "Sprawl." The problem is that the "Urban Efficient" category was 500 housing units per acre --- 125 times the typical four to the acre suburban development. At the average US household size, this calculates to 777,000 people per square mile. This is a high enough density to accommodate all of metropolitan Tokyo's 33 million residents within a 3.7 mile (5.9 kilometer) radius of the national parliament (Diet) building. In fact, affluent populations do not live at similar densities anywhere in the world in all but the most micro of spaces (for example, some prisons have higher densities, such as the high-rise Metropolitan Corrections Center in Chicago's Loop).

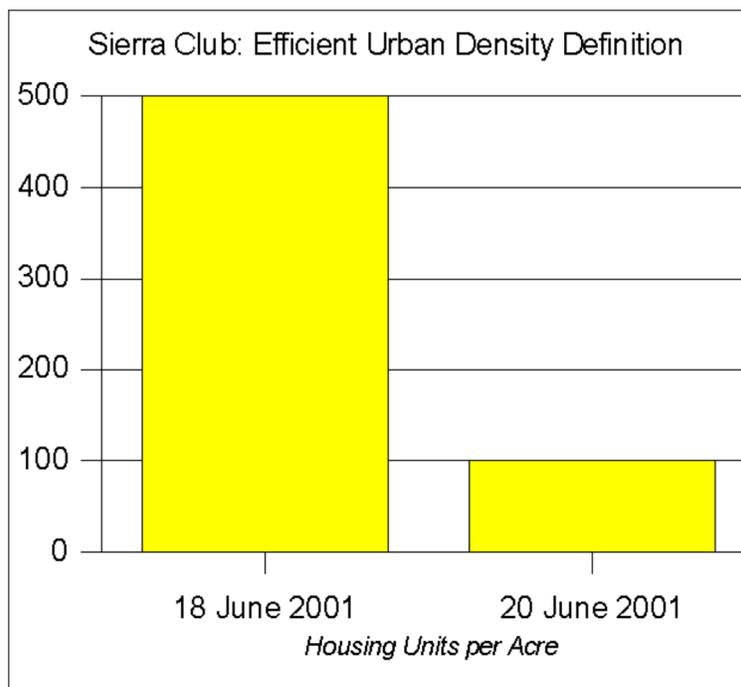
**ENVIRONMENTAL IMPACTS CALCULATOR II:** Apparently recognizing its error when a frenzy of Internet and press reaction was generated by Wendell Cox ([Demographia](#)) and Randal O'Toole ([Thoreau Institute](#)), the Sierra Club revised the Environmental Impacts Calculator on June 20, 2001 to show lower densities and to reduce its "Efficient Urban" category by 80 percent ([Chart below](#)) to the equivalent of 155,000 per square mile. The Environmental Impacts Calculator still showed a higher density figure, called "Dense Urban," at 400 housing units to the acre, the equivalent of 622,000 per square mile. This is still a rather starkly high density, and would require expansion of the hypothetical metropolitan Tokyo radius from the Diet from 3.7 to 4.1 miles (5.9 to 6.6 kilometers). As with 777,000 per square mile, affluent populations do not live at similar densities anywhere in the world in all but the most micro of spaces (such as some prisons).

The June 20, 2001 80 percent "Urban Efficient" reduction to 100 housing units per square mile still represented extremely high density. At the equivalent of 155,000 people per square mile, this is below the most dense census tract in the United States, in New York, at 230,000 per square mile. But little of the US is at such high densities --- it is estimated that in 2000, less than three square miles of the nation's approximately 100,000 square miles of urban development is above 155,000 persons per square mile. Similarly areas of such extremely high population density are hard to find in other dense first world urban areas. The most dense arrondissement of Paris registered a population density of 105,000 in 1999.

**ENVIRONMENTAL IMPACTS CALCULATOR III:** Sometime before [July 6, 2001](#), the Sierra Club must have recognized that promotion of such densities was unsustainable, and removed the revised Environmental Density Calculator from its website, with an "under construction" notice.

**POLL ANNOUNCED:** The "[Urban-Policy](#)" email list is sponsoring a [poll](#) to predict the highest density to be promoted in Environmental Impacts Calculator III. To participate requires joining the group, which can be accomplished through [this link](#)

**SIERRA CLUB DENSITY CATEGORIES IN CONTEXT:** Additional information on the Sierra Club densities categories is in the [table below](#).



SIERRA CLUB DENSITY CATEGORIES IN CONTEXT

Density Category Definition	Estimated Population per Square Mile	Notes
500 Housing Units per Acre 2001.06.18: Revised	777,000	No significant case of first world standard of living at this density.
Efficient Urban	155,000	

	Downward	2001.06.20		Some prisons achieve such densities.
Dense Urban	400 Housing Units per Acre	2001.06.20	622,000	No significant case of first world standard of living at this density. Some prisons achieve such densities.
Efficient Urban	Revised Downward 80 Percent to 100 Housing Units per Acre	2001.06.20	155,000	Small parts of highest density first world cities exceed this density. Highest density census tract in New York is 230,000 per square mile. Highest density arrondissement in Paris is 105,000.
Suburban	10 Housing Units per Acre:	2001.06.20	15,500	
Efficient	1 Housing Unit/Acre	(2001.06.18 and 2001.06.20)	1,600	
Sprawl				

[Polls Help](#)

**Question**

The Sierra Club has released and now withdrawn two versions of its Environmental Impacts Calculator, apparently the result of criticism over its use of radically high population density ratios (the highest being more than double that of any sizable first world neighborhood). What will be the highest density listed in Environmental Impacts Calculator III?

500 Housing Units/Acre (Dense Prison)  
 400 Housing Units/Acre (Efficient Prison)  
 100 Housing Units/Acre (Micro areas of Manhattan)  
 50 Housing Units/Acre (5x city of San Francisco)  
 25 Housing Units/Acre (central Tokyo))  
 10 Housing Units/Acre (city of San Francisco)  
 4 Housing Units/Acre (Reasonably Dense Suburban)  
 2 Housing Units/Acre (Affluent Suburban)  
 0.02 Housing Units/Acre (NRI urban development rate in PA, 1992-7)  
 0 Housing Units/Acre (Apparent Goal of Some Groups)

Your vote is shown above. You can change your vote until the poll is concluded.



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## stop sprawl

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