

# City Commission Agenda

## August 29, 2006

### Item #2

US Census Population Estimates  
Challenge

## Item #2: US Census Estimate

$$\begin{aligned} &\text{Housing units} \\ &\quad \times \\ &\quad \text{Occupancy Rate} \\ &\quad \times \\ &\quad \text{Average Household Size} \\ &\quad \times \\ &\quad \text{Rake Factor (Share of County Population)} \\ &\quad + \\ &\quad \text{Group quarters Population} \\ &\quad = \end{aligned}$$

**Population Estimate**  
**(81,816 People as of July 1<sup>st</sup>, 2005)**

## Item #2: City Estimate

### ● Building Permit Method

Housing Units

-

Demolished Units

X

Occupancy Rate

X

Average Household Size

=

**Population Estimate**

**(89,643 People on January 1<sup>st</sup>, 2006)**

## Item #2: City Estimate

**Table 1: Effect of different Vacancy Rates & Household Size on 2006 population estimate**

Vacancy Rate	Average Household Size	Population Estimate
4.2%	2.30	89,643
10.0%	2.30	89,080
4.2%	2.20	89,228
15.0%	2.20	88,212
15.0%	2.10	88,169

## Item #2: City Estimate

### ● Utility Record Method

Residential Accounts difference 2005 - 2000

X

Average Household Size

+

Multi-Family Accounts difference 2005 - 2000

X

Average Multi-Family Size

+

Census 2000 Population figure

=

**Population Estimate**

**(88,922 People on January 1<sup>st</sup>, 2006)**

## Item #2: City Estimate

**Table 2: Number of Water Customer Accounts**

<b>Year</b>	<b>Residential</b>	<b>Multi-Family</b>	
2000	24,524	706	
2001	25,189	725	
2002	25,904	737	
2003	26,457	746	
2004	27,123	733	
2005	28,136	740	
<b>Estimated Population Increase</b>			<b>8,824</b>

**Table 3: Estimated population based on water utility records**

Increase based on water utility records	8,824
Census figures from 2000	80,098
<b>Estimated January 1, 2006 population</b>	<b>88,922</b>

## Item #2: Additional Information

- If the Census Bureau estimate for 2005 is correct, then according to the amount of residential water accounts added since 2000, the average household size for the population added would be **.47 people**.

### Recommendation:

Staff believes that they are following the best practice in estimating population and recommends the City challenge the Douglas County and City of Lawrence U.S. Census Bureau estimates.