

FUTURE TRENDS

Part of the process to understand the future trends facing the City of New Rochelle is to interview the officials in the City Development Department to obtain information regarding future residential and commercial developments underway or proposed within the City.

New Residential & Commercial Development

New Rochelle is a nearly built-out city, therefore, new development is limited to existing properties rather than open space. There is potential development in vacant buildings in the downtown area. The City is in process of developing a new comprehensive plan to guide the community into the future, but currently the development is based on transit oriented development near the transportation corridor of the commuter rail and interstate 95, especially in the West End neighborhood. It is reported that there is still a need for low and moderate income housing in the City.

This West End neighborhood area is expected to be rezoned to allow higher density residential hoping to also attract more commercial business to the residents and hotel space. The four recent high-rise buildings (Trump, Loft, and the two Avalons) are all residential and not yet completely filled. An additional high-rise (20 floors) is planned for the existing Church-Division Street parking garage space. This is hoped to become a mixed-use development whereby residential floors exist above a ground floor retail and office spaces.

A planned development near Echo Bay on the existing City Yard property is planned for a four-story, 260 unit rental, mixed-use complex. Open space and preservation of the old Armory for reuse is also being planned.

Many plans in the past for redevelopment of David's Island have come and gone. David's Island could be redeveloped, but the question of access (bridge, ferry) and the cost of bridge construction may be too costly for any projected plans at this time. NRRFD should be consulted should any particular plan gain traction. The potential for a satellite station and the capabilities of nearby fire boats should be reviewed.

All potential developments increase responsibilities on NRRFD. As stated previously and demonstrated with incident-demand density mapping, the higher density of population is directly correlated with increased calls for service. While this new construction will be built under the most modern fire prevention codes and will be fully sprinkler equipped,

high-rise firefighting is different than residential or single-story commercial firefighting. This type of firefighting is one that NRPD has embraced and will continue to do so as the City develops further as a commuter center and perhaps a destination for nearby residents.

Transportation Improvements

No major new routes are being planned in New Rochelle that would significantly affect fire department travel. A current plan to improve the North Avenue overpass of I-95 is one of note but, again, it is not going to affect fire apparatus in the long term, expect potential delays during construction. While New Rochelle has a large traffic circle, these favor emergency services to traverse through areas. No other traffic circles are planned, but considerations of speed humps and other traffic calming devices on certain streets will have the effect of a poor at-grade crossing of a railroad crossing and will cause delay in the speed of emergency response. NRPD should be consulted before the implementation of traffic humps.

While no existing medians are being planned for removal, three streets may change directional travel according to the Development Office. Memorial Highway may have two-way traffic in the future. These will not significantly impact fire apparatus travel except Lawton is narrower than the others so this may cause delays for negotiating through with opposing traffic.

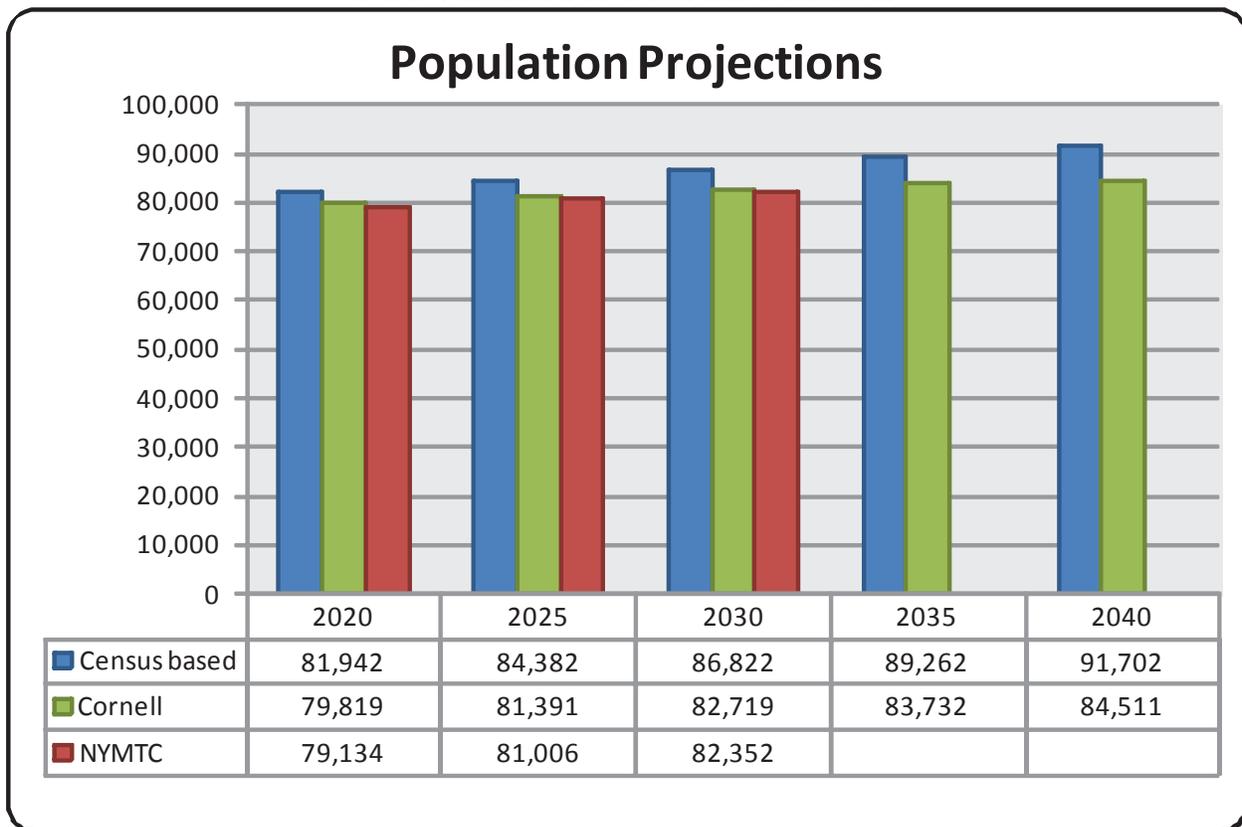
Population Projections

As indicated earlier in this chapter, the population of the City of New Rochelle has increased modestly over the past several decades. It is anticipated that additional population growth will continue into the future as the high-rise developments are filled and new ones are constructed. One method to project population growth is based on several decades of Census experience. For the City of New Rochelle, we used the decennial Census figures from 1990 through 2010 to extrapolate figures through the year 2030.

This method, however, can fail to account for expected trends in the growth rate of an area. These changes often result from redevelopment, changes in employment capacity, or other socio-economic factors not taken into consideration in a linear projection from historic rates. Because of this, local population projections from agencies with differing methodology are also reviewed.

For New Rochelle, information available from the City Sustainability Plan indicates an expected population of 82,000 residents and 32,000 households by 2030. The Program on Applied Demographics at Cornell University has developed projections upon the County level. These projections were proportioned to New Rochelle based upon historic Census level and projected forward to 2030. In addition, The New York Metropolitan Transportation Council (NYMTC)¹² of the Metropolitan Planning Organization has also forecasted County population levels and similar methodology to reflect the growth in New Rochelle was utilized. The resulting population forecasts appear in Figure 4.41¹³.

**Figure 4.41
POPULATION PROJECTIONS**



The locally produced population forecasts are more conservative than the Census-based population forecast primarily due to local and regional issues that are expected to persist in restraining population growth for the City, such as the lack of residential units for low- and moderate-income persons. As far as age composition, the County is expected to increase its over-65 age cohort from 17% to 22%, while all other age groups remain

¹² http://www.nymtc.org/project/forecasting/SED_products/2030%20Forecasts/TM%204.1.3B.pdf

¹³ <http://pad.human.cornell.edu/counties/projections.cfm>

generally static. New Rochelle will likely buck the trend of an increasingly aged population for several reasons. One is the cost of living in the area; empty nesters may move away or from single-family homes toward the rental towers in the City, if they can afford it. The other is the many colleges and the orientation to under age 25 students for retail and nightlife. Finally, New Rochelle's location along major transit corridors appeals to commuting workers, whose incomes drive the market for homes and apartments in the area. However, this may not occur if additional senior citizen oriented housing and care centers continue to find New Rochelle desirable.

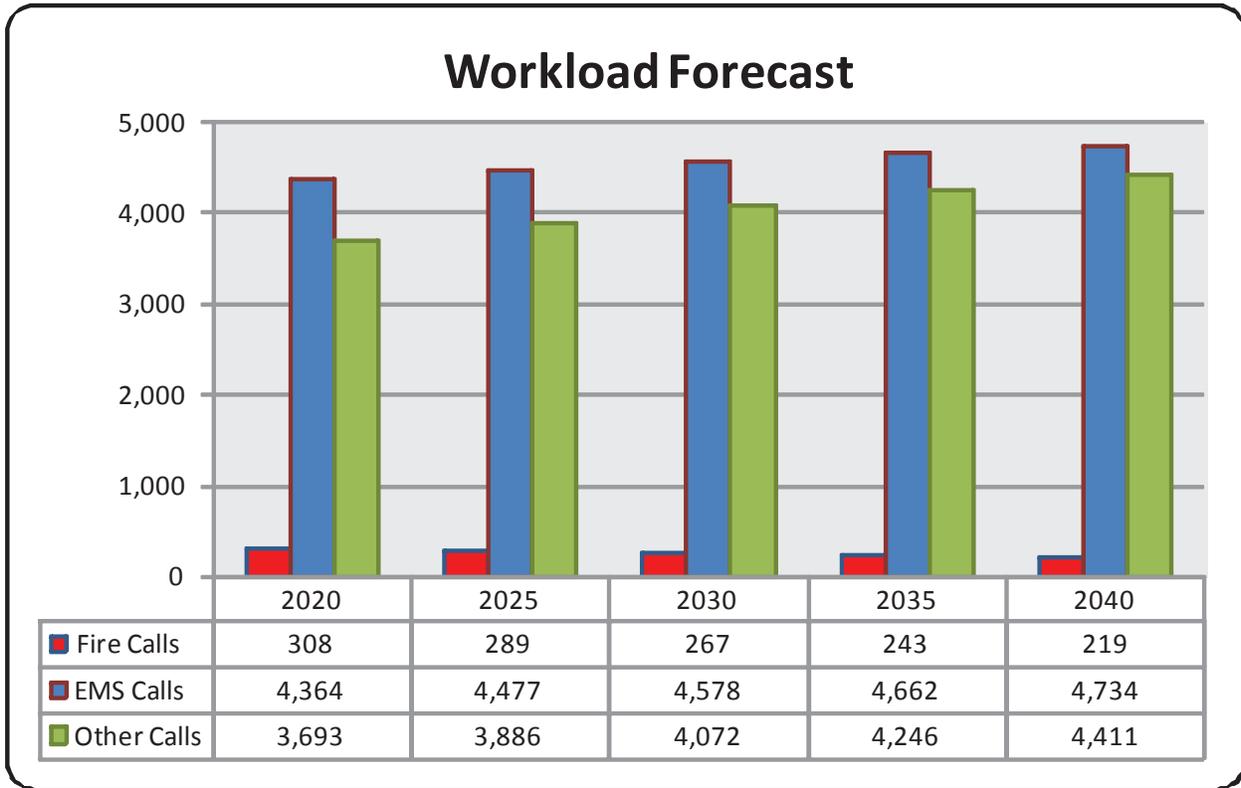
While these projections are not the definitive authority of future population within the City, they provide a way to base recommendations for future fire protection and emergency medical needs with expected service demand.

Workload Projections

In evaluating the deployment of facilities, resources, and staffing, it is imperative that potential changes in workload that could directly affect such deployment be examined in order to maintain acceptable levels of performance.

For purposes of this study, population projections extrapolated from the Cornell University County Demographic Forecast for New Rochelle was multiplied to an average of the forecasted incident rate calculated from a five-year history of incidents per capita and the actual average incident rate per capita to estimate workload through the year 2040. The result of the analysis is shown in Figure 4.42.

**Figure 4.42
ESTIMATED FUTURE WORKLOAD**



Actual fire incidents are expected to decline, but this is reflective of national trends due to improvements in building codes and public fire education. EMS and other types of fire calls are expected to continue to rise because of the increased population.

RESOURCE DEPLOYMENT SCENARIOS

With available apparatus, 95% of historic service demand can be reached within NFPA 1710 time parameters of a fire station. It has also been shown that all demand and roadways can be reached within eight minutes of a fire station. More importantly, nearly 86% of the reported structure fires can be reached by the first-alarm assembly travel time limits. The question remains then if the workload for units and the level of call concurrency (EMS calls being the most concurrent) inhibits NRPD from responding to calls with appropriate resources. The mutual aid resources into New Rochelle are rather low, indicating that NRPD is adequately handling the volume of calls with current resources.

The scope of work for this study was not whether the City should be seeking additions to the fire department resources, but rather where it could reduce assets at the stations, single apparatus, or staffing while still maintaining the ability of NRPD to deliver services within established industry benchmarks. This section examines these considerations and the impact, if any, upon the City of New Rochelle.

Apparatus Reduction

The reduction of an apparatus has the corresponding effect of staffing reduction. New Rochelle currently staffs five engines and three trucks utilizing three firefighters per apparatus. To eliminate an apparatus, the most likely choice would be a Ladder type since an Engine is an initial attack vehicle. Also, two of the five stations in New Rochelle only have a staffed Engine apparatus, so the closure of an engine would equate to a station closure.

Four firefighters per apparatus is the recommended staffing level according to the NFPA. Figure 4.43 illustrates the staffing levels for scenarios that include eliminating one or more apparatus without regard to which station it affects.

**Figure 4.43
APPARATUS REDUCTION TABLE**

	Current		Close 1 Ladder		Close Eng and truck (one station)	
Apparatus	3 man	4 man	3 man	4 man	3 man	4 man
Engine A	3	4	3	4	3	4
Engine B	3	4	3	4	3	4
Engine C	3	4	3	4	3	4
Engine D	3	4	3	4	3	4
Engine E	3	4	3	4		
Ladder A	3	4	3	4	3	4
Ladder B	3	4	3	4	3	4
Ladder C	3	4				
Total	24	32	21	28	18	24

While it is evident that even a reduction of three apparatus is still sufficient for a first-alarm assembly force, actual fires often require multiple alarms, additional resources that would have to come from elsewhere and leave the City bare of emergency resources for another incident. This is not a recommended strategy.

Additionally, the reduction of Ladder units may affect the ISO coverage of the area of the City with the highest structural risk and highest population densities. This would potentially increase insurance premiums to the property owners. In addition, since a first-alarm assembly for a fire incident calls for two ladders, the city would have to rely upon mutual aid. The remaining ladders would have increased usage with corresponding maintenance costs, and the ability to send one ladder for training at the county facility would be hampered. To examine the effect of a Ladder closure incrementally from its host station (see Figure 4.12), we begin with the Ladder in Station 1.

Station 1 Ladder

It can be seen in Figure 4.44 that the effect of shutting down the Ladder at Station 1 has minimal impact upon the ISO distance coverage and the coverage of higher risk structures downtown. Recall, it does take away an available resource for multiple alarm structure fire incidents and concurrent call events.

The loss of the Ladder in Station 1 also minimally impacts the first-alarm coverage area based upon the current NRPD policy of 3 Engines, 2 Trucks, and the Deputy Chief (Figure 4.45). It should be noted that the tower ladder in Station 1 does not fit in any of the other stations due to its size necessary for the structures nearby.

Station 2 Ladder

For the loss of a Ladder company in Station 2¹⁴, Figure 4.46 illustrates a similar minimal impact upon ISO Distance and the higher risk property coverage downtown.

Again, Figure 4.47 shows minimal consequence upon the first-alarm assembly coverage area when the Ladder is removed from Station 2.

¹⁴ According to Capt. Nechis, this truck was purchased with funds using a Federal Community Development Block Grant (CDBG) to be assigned to Station 2. The grant totaled \$820,000.