CITY OF RANCHO PALOS VERDES

COMMUNITY DEVELOPMENT DEPARTMENT

MEMORANDUM

TO: CHAIRMAN & MEMBERS OF THE PLANNING COMMISSION

FROM: JOEL ROJAS, COMMUNITY DEVELOPMENT DIRECTOR

DATE: MARCH 10, 2015

SUBJECT: GENERAL PLAN UPDATE – REVISIONS TO ADDRESS CLIMATE CHANGE

Project Manager: So Kim, Senior Planner

RECOMMENDATION

Approve the sub-committee's (Commissioners Cruikshank and James) recommended revisions to the Open Space/Conservation Element and Safety Element pertaining to Climate Change.

BACKGROUND

At the February 24, 2015 Planning Commission (PC) meeting, Staff presented a status report on the General Plan Update. In short, the following needs to be done prior to bringing the entire Draft General Plan Update package to the Commission for review, which is targeted for the April 22nd meeting:

- Prepare the Climate Change Section within the Open Space/Conservation Element – A draft version has been completed by the sub-committee and Staff – This is the topic of discussion this evening.
- Prepare a CEQA document for the General Plan Update, accompanied by a "Land Use Change Summary Report" that provides a list of all Commission approved land use changes associated with the General Plan Update.
- Update all graphics within the General Plan document.
- Minor text revisions/updates as necessary to the Commission approved elements.

The Climate Change Section described in the 1st bullet point above is the topic of tonight's item. A public notice was published in the *Peninsula News* on February 19, 2015. Staff received no correspondence in response to the public notice.

DISCUSSION

Most of the text of the General Plan has been reviewed and approved by the PC. The only section missing was the Climate Change discussion. As such, Staff worked with the sub-committee and completed a draft version to be included in the PC approved Open Space/Conservation Element. It should be noted that the topic of air quality was included in both the Open Space/Conservation

Element and the Safety Element. In reviewing these sections, Staff found the discussions to be redundant and not necessary in both elements. Therefore, the air quality discussion in the Safety Element was omitted in its entirety as this discussion is only required in the Open Space/Conservation Element of the General Plan. Below are the proposed changes to the PC approved Open Space/Conservation Element and Safety Element (language to be omitted shown in ~~strikethrough~~ text and new language shown in **bold/underline** text).

OPEN SPACE/CONSERVATION ELEMENT

Air Quality and Climate Change

Air quality is affected by various emission sources as well as atmospheric conditions such as wind speed, wind direction, temperature, rainfall, etc. The combination of topography, inversion layers, abundant sunshine, and emissions from the second largest urban area in the United States make the Los Angeles Basin as a whole, one of the top 5 worst air pollution problem areas in the nation.

~~On the other hand,~~ The City of Rancho Palos Verdes is located at the southwestern border of the Basin, adjacent to the Pacific Ocean, with winds that blow predominantly from the west-southwest at relatively low velocities. The mild winds typically transport the air pollutants generated in the urbanized areas of the Los Angeles Basin, away from the City and towards the inland areas to the east. As a result, with the rare exception of **on to** off shore wind conditions **("Santa Anas")**, the City of Rancho Palos Verdes' air pollutant level is better than the Los Angeles basin and consistently registers below the State and Federal emission standards.

~~The Eastview area's prevailing wind is from the west and generally the climate and air quality are mild and good respectively.~~

The air quality station closest to Rancho Palos Verdes is the North Long Beach Station. This station monitors all criteria pollutants and is summarized in the table below. As reflected in this data, the levels of carbon monoxide, ozone, coarse and fine particulates, nitrogen dioxide, and sulfur dioxide are consistently below the relevant State and National standards in the general vicinity.

POLLUTANT	STANDARD	2011	2012	2013
Carbon Monoxide (CO)				
Max. 8-hr concentration (ppm)		2.56	2.17	ND1
No. of days exceeded:	State: ≥ 9 ppm	0	0	ND
	National: ≥ 9 ppm	0	0	ND
Ozone (O_3)				
Max. 1-hr concentration (ppm)		0.073	0.084	0.092
No. of days exceeded:	State: > 0.09 ppm	0	0	0
Max. 8-hr concentration (ppm)		0.062	0.067	0.071
No. of days exceeded:	State: > 0.07 ppm	0	0	1
	National: > 0.075 ppm	0	0	0

1 There was insufficient data available to determine the value.

Coarse Particulates (PM_{10})				
Max. 24-hr concentration (µg/m³)		43	45	37
No. of days exceeded:	State: > 50 µg/m³	0	0	0
	National: > 150 µg/m³	0	0	0
Fine Particulates ($PM_{2.5}$)				
Max. 24-hr concentration (µg/m³)		44	58.6	51.7
No. of days exceeded:	National: > 35 µg/m³	1.2	4.1	2.2
Nitrogen Dioxide (NO_2)				
Max. 1-hr concentration (ppm)		0.106	0.077	0.066
No. of days exceeded:	State: > 0.18 ppm	0	0	0
	National: > 0.1 ppm	1	0	0
Sulfur Dioxide (SO_2)				
Max. 1-hr concentration (ppm)		0.004	0.003	0.001
No. of days exceeded:	State: > 0.04 ppm	0	0	0
	National: > 0.075 ppm	0	0	0

California's Efforts to Reduce Greenhouse Gas Emissions

The Earth's atmosphere is constantly changing. While there may be some disagreement on the causes of current climate change, the State of California's position is that climate change is at least partially the result of increased greenhouse gas (GHG) emissions into the atmosphere, which exacerbates global warming.

The first comprehensive State policy to address climate change was established through an Executive Order by Governor Schwarzenegger in 2005, which established the following ambitious GHG reduction targets for the State: 1) Reduce GHG emissions to 2000 levels by 2010; 2) Reduce to 1990 levels by 2020, and 3) Reduce to 80% below 1990 levels by 2050. This Order is binding only on State agencies, and has no force of law for local governments. The Global Warming Solutions Act of 2006 (AB32) codified the GHG emissions target by directing the Air Resources Board (ARB) to reduce the State's global warming emissions to 1990 levels by 2020. ARB's Scoping Plan (Plan) outlines a variety of strategies to reduce emissions in the State to 1990 levels by 2020. The Plan discusses (but does not mandate) ways in which local governments can achieve direct GHG reductions; such as actions to reduce energy use at their own facilities, to increase recycling, to reduce waste and water use, and to reduce carbon emissions from their vehicle fleets.

In 2008, Governor Schwarzenegger signed Senate Bill 375. This bill takes AB32 a bit further by: 1) requiring the ARB to establish regional targets for reduction in GHGs from passenger cars and small trucks associated with land use decisions; 2) requiring metropolitan planning agencies (ex. SCAG) to create a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan (RTP) to meet reduction targets in GHGs; 3) requiring that funding decisions for regional transportation projects be internally consistent within the RTP; 4) aligning the Regional Housing Needs Assessment (RHNA) with the RTP; and 5) providing CEQA relief in the form of streamlining and exemptions for projects that are consistent with the RTP SCS. While there are no mandates placed upon local governments for

implementation of SB375, the last two items noted above can affect local governments.

Rancho Palos Verdes Efforts to Reduce Greenhouse Gas Emissions

One of the first steps a city can take toward protecting the environment from GHG emissions and promoting environmental stewardship is to identify and account for its own sources of emissions including municipal and communitywide emissions. To assist with this effort, the South Bay Cities Council of Governments (SBCCOG) completed greenhouse gas emissions inventories – for both government operations and communitywide activities, for the years 2005 and 2007 for each city in the South Bay, including Rancho Palos Verdes.

The SBCCOG released a Community Greenhouse Gas Emissions Inventory Report in 2010, showing that in 2007, the City generated approximately 0.0277 teragrams (tg - one million metric tons) of carbon dioxide. A teragram is a globally recognized standard metric unit used to measure emission levels.

The projected construction activities (see Circulation Element) and related population increases (see Land Use Element) based on a built-out scenario that estimates the impact following the development of all vacant lots in the City could directly or indirectly contribute to the generation of additional GHG emissions through the removal of vegetation, construction activities, energy use (gas, electricity and water), solid waste disposal and motor vehicle use. However, given the limited number of vacant lots left to build on in the City and the limited population increase expected, the additional increase in emissions is expected to be insignificant.

Although the potential increase in GHG emission levels in the City are not projected to be significant, the City is committed to maintaining high standards for public health and to continue to improve air quality and GHG emissions. The City has remodeled municipal facilities to increase energy efficiency, purchased fuel-efficient fleet vehicles, developed water conservation ordinances, expanded office recycling, and promoted alternative transportation options. It has influenced energy efficiency through its authority over land use planning, permitting, local ordinance, and environmental outreach and education. For example, a 'Green Building' ordinance was adopted in 2008 as an incentive for builders to construct a new or convert an existing structure to the California's Build It Green standards. This program provides incentives that include expedited review and reimbursement of half of the City's application fees. Additionally, the California Building Code has been recently updated to include green building standards (2010), requiring energy efficient development.

The following policies are designed to help reduce GHGs through more efficient energy systems and recycling, reductions in vehicle miles traveled, and the preservation of open space areas.

Climate Change Policies:

1. Continue to work with SBCCOG to develop an Energy Efficient Climate Action Plan and a Climate Action Plan that would include strategies that consider the unique characteristics and conditions of the City.

2. Continue to review development proposals for potential regional and local air quality impacts per the California Environmental Quality Act (CEQA), and if potential impacts are identified, require mitigation to reduce the impact to a level less than significant, where technically and economically feasible.

3. Continue to enforce State Title 242 building construction requirements and apply standards that promote energy conservation.

4. Promote new energy efficient buildings and retrofit existing public facilities to be energy efficient as feasible.

5. Continue to promote and encourage participation in the City's Voluntary Green Building Construction Program and award developers with a faster entitlement process and up to 50% rebate on permitting fees.

6. Continue managing the City's transportation fleet fueling standards to achieve the greatest number of hybrid and alternative fuel vehicles.

7. Support the development of alternative fuel infrastructure that is publicly accessible.

8. Continue to implement the required components of the Congestion Management Plan (CMP), and continue to work with Los Angeles County on annual updates to the CMP3.

9. Encourage utility companies to provide informational literature about energy conservation for the public at City facilities.

10. Provide information to educate residents and businesses on topics such as waste reduction, recycling, green buildings and landscaping, and renewable energy generation. Utilize a range of tools including fact sheets, website newsletters, advertising and workshops to reach potential audiences.

11. Improve pedestrian, bicycle and public transportation routes and amenities to serve the travel needs of residents and visitors. Where feasible, the City will connect major destinations such as parks, open spaces, civic facilities, retail and recreation

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2 Title 24 of the California Code of Regulations is also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings, were created and periodically updated by the California Building Standards Commission in response to a legislative mandate to reduce California's energy consumption.

3 A Congestion Management Program (CMP) was enacted by the State Legislature to improve traffic congestion in California's urban areas. In accordance with the State statute, the Los Angeles County Metropolitan Transportation Authority (MTA) adopted and updated several CMPs. Cities are required to continue adopting an annual self-certified conformance resolution for conformance with the CMP requirements.

areas with pedestrian, bicycle, and public transportation infrastructure; promote shared roadways; and require new development and redevelopment projects to provide pedestrian, bicycle, and public transportation amenities, and streetscape improvements.

12. Continue to acquire, improve and implement the City's pedestrian and bicycle networks. Identify gaps in these networks, major travel routes and safety improvements.

13. Continue to provide subsidies in application fees for solar panels, skylights, high efficient pool/spa pumps, tankless water heaters and energy star4 units to promote efficient use of energy and conservation.

14. Continue to support the preservation of open spaces throughout the City.

SAFETY ELEMENT

~~Air Pollution & Effects of Climate Change~~

~~The air quality in the City of Rancho Palos Verdes is relatively good, due to the environmental characteristics of the Palos Verdes Peninsula (see 'Air Quality' section of the Conservation & Open Space Element). While the air quality based on current atmospheric conditions and emissions are generally good, according to LSA Associates' Air Quality Study (2010), a total of 86,000 metric tons (0.0086 Tg – teragrams) of carbon dioxide (CO_2) will be generated with a built-out scenario that estimates the impact following the development of all vacant lots in the City. Although the additional 0.0086Tg of CO_2 sounds significant, as a comparison, the City currently generated 0.277Tg in 2007 while the State of California produces approximately 497Tg annually.~~

~~As discussed in the Conservation & Open Space Element, GHG levels have decreased by 2% from 2005 to 2007. The decrease can be attributed in the City to lower emission from electricity, gasoline, and solid waste sources. More specifically, transportation activities are one of the largest sources of GHG emissions in California and represent nearly 67% of the annual CO_2 emissions generated in the State. Like most land use development projects, vehicle miles traveled (VMT) is the most direct indicator of CO_2, and CO_2 emissions function as the best indicator of total GHG emissions.~~

~~As discussed in the Circulation Element, approximately 99% of the on-road travel emissions are from vehicles (94% gasoline & 5% diesel) and the remaining 1% is from off-road equipment (lawn, garden, construction, industrial etc.). From 1990 to 2005, the total amount of emissions declined by approximately 4%, primarily due to improvement in fuel efficiency of vehicles. Additionally, localized CO_2 concentrations at congested roadways at peak traffic hours will remain under the corresponding State and Federal CO_2 standards based on a recent Traffic Impact Analysis (Wildan Engineering, 2010).~~

~~Construction activities produce combustion emissions from various sources such as demolition, site grading, utility engines, and heavy-duty construction vehicles on each development site. Exhaust emissions from construction activities vary as construction~~

4 ENERGY STAR is a label often found in various products, such as appliances, which have been certified based on testing in EPA (Environmental Protection Agency)-recognized laboratories that ensures less energy consumption and greenhouse gas emissions than their peers.

~~activity levels change. The use of construction equipment on site would result in localized exhaust emissions, similar to congested intersections. Based on an Air Quality Analysis (LSA Associates, 2010), the future development of the remaining vacant lots in the City may exceed the criteria pollutant thresholds established by the South Coast Air Quality Management District, if those developments were under construction at the same time with similar schedules. Given that this scenario is extremely unlikely, and the City is practically built-out with scarce vacant lots, the incremental increase in development, population and fuel efficiency will result in emission levels that will remain below the State and federal standards.~~

~~Despite that there would be no significant impacts to air quality or significant increases of GHG as a result of the built-out scenario, the City has been and continues to make efforts to reduce energy consumption. For example, the City has been remodeling its municipal facilities to increase energy efficiency and purchasing fuel-efficient fleet vehicles. At a community-scale, the City has been influencing energy efficiency through various conservation ordinances, subsidies for green appliances/buildings and outreach. These efforts help decrease emission levels to further improve air quality and reduce GHG in the City.~~

~~Despite the City's efforts in reducing GHG emissions, it is anticipated that there may be impacts to the City in the future as a result of climate change. These impacts include (consultant will assist with this text). To address these potential impacts, the City (consultant to assist with text).~~

GENERAL PLAN UPDATE FINAL DRAFT

The final "draft" elements will include the Climate Change discussion and other Staff recommended minor updates, which will be presented to the Commission as a single document at a future noticed hearing. Any future minor updates or changes made by Staff to the document will be shown in ~~strikethrough~~ text for text removed or **bold/underline** text for text added. When the Commission approves of the final "draft" document, this will be presented to the City Council for final adoption.

CONCLUSION

Staff is requesting that the Planning Commission review and approve the sub-committee recommended revisions to the Open Space/Conservation Element and Safety Element pertaining to Climate Change.