

## Appendix 4.2-4 SBCAPCD Mitigation Comparison Table

<p>5.3 OPERATIONAL IMPACT MITIGATION - OZONE PRECURSOR (NOX AND ROC) MITIGATION MEASURES</p> <p>The APCD has a special interest in residential and commercial land use projects that use sustainable development and pollution prevention principles. Such projects benefit air quality by reducing the use of the single occupant vehicle and by using energy more efficiently. Sustainable development includes principles that strengthen existing communities by directing development towards <b>infill locations, promote mixed land uses</b>, take advantage of <b>compact and green building designs</b> and <b>preserve open space</b>, agricultural land, natural beauty and <b>environmentally sensitive areas</b>. The principles also provide a variety of housing opportunities and choices; create walkable communities with a variety of transportation choices. Pollution prevention principles include "green" buildings whose location, design, construction and energy systems reduce the use of non-renewable energy resources.</p>	<p>Based on the Project Description - Building Program:</p> <ul style="list-style-type: none"> <li>• The LRDP proposes to strengthen the campus core, providing for better utilization of space, predominantly through <b>infill</b> of academic and research space, while <b>protecting the sensitive resource areas surrounding the campus</b>.</li> <li>• Mixed use areas will be designated where new or renovated housing is proposed in the building program</li> </ul> <p>Additional University programs, which will be integrated into development proposed under the 2007 LRDP:</p> <ul style="list-style-type: none"> <li>• The University will continue to implement there Title 24 Energy Efficiency (energy efficiency which surpasses Title 24 by 20%)</li> <li>• Continued implementation of the University's <i>Green Building Policy</i></li> <li>• Final Adoption and Implementation of: <i>University Policy on Sustainable Practices and guidelines for implementation</i></li> </ul>
<p>5.3.1 Transportation Control Measures</p> <p><u>Onsite Measures</u></p> <ul style="list-style-type: none"> <li>• Include multiple-use development to reduce the need for vehicle trips. <i>Example: Combine residential, employment, and retail uses.</i></li> <li>• Include design features to encourage alternate transportation modes. <i>Examples: <b>For pedestrians:</b> sidewalks; safe street and parking lot crossings; shade trees; off street breezeways, alleys, and over crossings; placement of parking lots and building entrances to favor pedestrians rather than cars; shower and locker facilities.</i> <b>For transit riders:</b> all of the above plus safe, sheltered transit stops with convenient access to building entrances. <b>For bicyclists:</b> theft proof and well-lighted bicycle storage facilities with convenient access to building entrance; on-site bikeways between buildings or uses; shower and locker facilities. <b>For carpools and vanpools:</b> preferential parking.</li> <li>• Provide onsite services to reduce the need for offsite travel. <i>Examples: <b>For residential developments:</b> include childcare, telecommute center, neighborhood retail stores, postal machines, automatic teller machines.</i> <b>For commercial/office developments:</b> include childcare, food services, postal machines, banking services. <b>For commercial/retail developments:</b> include delivery services, sales by phone.</li> <li>• Provide onsite services to encourage alternative transportation modes. <i>Examples: rideshare matching, transit subsidies, vanpool subsidies, shuttle services, parking management, guaranteed ride home, education.</i></li> <li>• Schedule operations to reduce trips during highly congested periods.</li> </ul>	<p>a. Providing On-campus Housing for new students, faculty, staff, and their families (and increasing the amount of services on campus and within the housing developments) - bringing population closer to work/school therefore reducing automobile dependency.</p> <p>b. The Ocean Road neighborhood would have a mix of residential and commercial uses. Residents would live in proximity to amenities and work which would reduce the number of vehicle trips. (2007 LRDP)</p> <p>See (a) above.</p> <p>c. UCSB already implements their TAP Program (Transportation Alternatives Program)</p> <p>d. ...feature[s] of the Campus Housing Plan...Open areas would facilitate</p>

<p><i>Examples: adjust business hours, allow alternative work schedules, schedule deliveries for off-peak hours.</i></p> <p>Off-Site Measures</p> <ul style="list-style-type: none"> <li>• Transit service enhancements to serve the project. <i>Examples: provide express bus service, bike racks on buses, shuttle buses.</i></li> <li>• Bikeway improvements related to the project. <i>Examples: extend bikeway network to provide better access.</i></li> <li>• Pedestrian improvements serving the project. <i>Examples: add sidewalks to improve access, pedestrian crossings and overhead or underground walkways.</i></li> <li>• Telecommuting services for project-related employees. <i>Examples: provide rental computers, telecommuting centers.</i></li> <li>• Public education for residents or employees of the project. <i>Examples: explain the benefits of alternative transportation through multi-media campaigns, such as pamphlets, public service announcements, newsletters or community bulletin boards.</i></li> </ul>	<p>expanded bikeways providing access to the University and provide more options overall for cyclists.</p> <p>e. Housing neighborhoods will be connected to each other and to the University via pedestrian walkways, bike paths, streets, and more frequent transit service, resulting in more efficient transportation systems. This interconnectedness will reduce the number of vehicle trips by the residents.</p>	
<p>5.3.3 Energy Conservation</p> <p>The following are examples of innovative measures, beyond Title 24 compliance, that <b>should</b> be incorporated into project building plans:</p> <ul style="list-style-type: none"> <li>• Photovoltaic and wind generators</li> <li>• Duct system within the building thermal envelope, or insulated to R-8</li> <li>• Passive cooling strategies: Passive or fan-aided cooling planned for or designed into structure, a cupola or roof opening for hot air venting or underground cooling tubes</li> <li>• Outdoor lighting designed for high efficiency, solar-powered or controlled by motion detectors</li> <li>• Natural lighting in buildings</li> <li>• Building siting and orientation to reduce energy use</li> <li>• Summer shading and wind protection measures to increase energy efficiency</li> <li>• Use of concrete or other non-polluting materials for parking lots instead of asphalt</li> <li>• Use of landscaping to shade buildings and parking lots</li> <li>• Installation of energy efficient appliances and lighting</li> <li>• Installation of mechanical air conditioners and refrigeration units that use non-ozone depleting chemicals</li> <li>• Installation of sidewalks and bike paths</li> <li>• Installation of covered bus stops to encourage use of mass transportation</li> <li>• Display kiosk with air quality and alternative transportation educational materials.</li> </ul>	<p>See 2007 Sustainability Plan</p> <p>Note that although these are only recommendations from the SBCAPCD, the University does implement them through their Title 24 reduction policy, Green Building policy, and Sustainability Plan.</p>	
<p>5.3.4 Green Materials and Practices</p> <p>Proposed building plans <b>should</b> include green building materials and pollution prevention practices recommended by the IBRP, such as:</p> <ul style="list-style-type: none"> <li>• At least 50% of exterior of local masonry; plaster or cementitious siding; recycled, salvaged or certified sustainably harvested wood; recycled roofing material or combination cement-fiber roofing; 30-year rated life on minimum 50% of roof</li> <li>• At least 50% interior floor of tile, stone, finished concrete; cork or natural linoleum, carpet and pad (tacked) of recycled content or natural content, minimal finishes</li> <li>• All insulation to be 100% recycled content, wet-blown, and/or cellulose with UL fire retardant</li> <li>• The use of light colored water based paint and roofing materials</li> <li>• At least 80% of interior and exterior paints and finishes to be water-based or low VOC and adhesives to be solvent-free</li> <li>• Prepare a construction waste management plan to encourage material re-use and minimize waste.</li> </ul>		
<p><b>ADD Emission Control Measures from Chapter 4 of 2007 CAP</b></p>		

Transportation Control Measures Proposed for Adoption		
TCM-5 Designation: Public Transportation	Express Bus Transit Service – UCSB Line 24 Extension	
TCM-8 Designation: Parking Management	Variable Parking Rates by Location (voluntary) (UCSB in conjunction with SBCAG/Cities of Goleta, SB, & County)	
TCM-18 Alternative Fuel Program		