

CHAPTER 10.0

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APPENDIX A

STANDARD (REQUIRED) LBNL PROJECT FEATURES

LBNL has identified several environmentally proactive measures in its 1987 Long Range Development Plan (LRDP) Environmental Impact Report (EIR), as amended, that Berkeley Lab implements in all of its projects and development to avoid or minimize potentially significant environmental impacts. These mitigation measures have been adopted as part of the LRDP EIR by The Regents of the University of California and thus are required of all LBNL activities pursuant to the California Environmental Quality Act (CEQA). Consequently, all such measures relevant to the design, construction, and operation of the proposed Molecular Foundry are included in the project description as standard features of all such LBNL projects. These measures are pertinent to such environmental resource areas as geology; hydrology and water quality; biological resources, visual quality; land use; air quality; noise; traffic; and hazards and hazardous materials. Included among them are those listed below:

- Geologic and soils studies will be undertaken during the design phase of each LBNL building project. Recommendations contained in those studies will be followed to ensure that the effects of landsliding, lurching, and liquefaction potential will not represent a significant adverse impact during a seismic event.
- Excavation and earth moving will be designed for stability, and accomplished during the dry season when feasible. Drainage will be arranged to minimize silting, erosion, and landsliding. Upon completion, all land will be restored, covering exposed earth with planting.
- Foundations for proposed structures will be designed in accordance with geologic and soils engineering recommendations to minimize the long-term possibilities of landslide.
- Excavations will be shored as required by law to preclude minor short-term landslides during construction.
- Revegetation of disturbed areas, including slope stabilization sites, using native shrubs, trees and grasses will be included as part of all new projects.
- Each individual project will continue to be designed and constructed with adequate storm drainage facilities to collect surface water from roofs, sidewalks, parking lots and other surfaces and deliver it into existing channels which have adequate capacity to handle the flow.
- Invasion of opportunistic colonizer trees and shrubs will be controlled. A maintenance program for controlling further establishment of eucalyptus, green wattle acacia, French broom, cotoneaster, and other opportunistic colonizer shrubs and trees in disturbed areas on-site will be undertaken. Herbicides will not be used for this purpose.

- Removal of native trees and shrubs will be minimized. (To the greatest extent possible, the removal of large coast live oak, California bay, and Monterey pine trees will be avoided.).
- Disturbance to the site perimeter buffer zones will be minimized.
- LBNL activity and encroachment in Blackberry Canyon will be minimized.
- Revegetation of disturbed areas, including slope stabilization sites, using native shrubs, trees, and grasses will be included as part of all new projects.
- Buildings will occupy as limited a footprint as feasible. They will incorporate features that enhance flexibility and future versatility.
- Buildings will be planned to blend with their surroundings and be appropriately landscaped. Planned objectives will be for new buildings to retain and enhance long-distance view corridors and not to compromise views from existing homes. New buildings will generally be low-rise construction.
- Any new facilities will not use reflective exterior wall materials or reflective glass, to mitigate the potential impacts of light and glare.
- Buildings proposed for development at LBNL will follow the design guidelines contained in the LBNL LRDP, as amended.
- Discourage single-occupant-vehicle use and encourage the use of other transportation options. LBNL will continue to implement its Transportation System Management (TSM) Program. The specific features of this program include:

Establishing transportation modal-split goals for LBNL which will result in a reduction in the number and percentage of single-occupant automobiles being driven to and from LBNL;

Assigning a transportation planner to coordinate the design and implementation of TSM programs;

Promoting carpools by creating a carpool matching program;

Providing preferential carpool parking;

Developing a vanpooling program through funding support of Berkeley TRIPS;

Permitting staggered (flex-time) work hours;

Developing an annual monitoring program to evaluate the programs in relation to established goals and identify new elements which should be added to the program;

Promoting the TSM programs by giving orientation briefings to new employees, providing information aids to be distributed to LBNL employees, organizing an information center, and selling transit tickets on-site at LBNL;

Reviewing LBNL shuttle service and transit interface facilities; and,

reviewing bicycle routes and storage facilities for improvements.

- LBNL will conduct bi-annual peak hour traffic counts in and around LBNL. In particular, the bi-annual count will include the Gayley Road corridor between Hearst Avenue and Bancroft/Piedmont.
- If and at such time as the level of service at intersections along the Gayley Road corridor reaches “D,” a review of necessary improvements will be conducted with UC Berkeley.
- LBNL will pay for its fair share of allowable and necessary signalization improvements along the Gayley Road corridor proportional to LBNL’s share of increases in traffic.
- Details of the Gayley Road corridor improvements, including environmental assessment of the improvements, will be reviewed at the time the thresholds are reached.
- LBNL will continue to implement and monitor the implementation of its Transportation System Management Program.
- Construction contract specifications would require that during construction exposed surfaces would be wetted twice daily or as needed to reduce dust emissions. In addition, contract specifications would require covering of excavated materials.
- LBNL will design building ventilation systems to minimize emission of criteria air pollutants following compliance with all applicable regulatory requirements (e.g., New Source Review). This mitigation measure would not reduce the impact to less than significant levels.
- Projected noise levels will be compared with ambient noise levels and the Berkeley Noise Ordinance limits, or other applicable regulations. Acoustical performance standards would be included in future construction documents. LBNL will continue to design, construct, and operate buildings and building equipment taking into account measures to reduce the potential for excessive noise transmission.
- Noise-generating construction equipment will be located as far as possible from existing buildings. If necessary, windows of laboratories or offices will be temporarily covered to reduce interior noise levels on-site.
- LBNL will prepare an annual self-assessment summary report. The report will summarize environment, health and safety program activities, and identify any areas where LBNL is not in compliance with laws and regulations governing hazardous materials, hazardous waste, hazardous materials transportation, regulated building components, worker safety, emergency response, and remediation activities.
- Prior to shipping any hazardous materials to any hazardous waste treatment, storage, or disposal facility, LBNL will confirm that the facility is licensed to receive the type of waste LBNL is proposing to ship to that facility.
- LBNL will continue its waste minimization programs and strive to identify new and innovative methods to minimize hazardous waste generated by LBNL activities.
- LBNL will require hazardous waste haulers to provide evidence that they are appropriately licensed to transport the type of wastes being shipped from LBNL.

- In addition to implementation of the numerous employee communication and training requirements included in regulatory programs, LBNL will undertake the following additional measures as ongoing reminders to workers of health and safety requirements:
 - Posting, in areas where hazardous materials are handled, of phone numbers of LBNL offices which can assist in proper handling procedures and emergency response information.
 - Continuing to post “Emergency Response and Evacuation Plans” in all LBNL buildings.
 - Continuing to post all sinks in areas where hazardous materials are handled with signs reminding users that hazardous wastes cannot be poured down the drain.
 - Continuing to post dumpsters and central trash collection areas where hazardous materials are handled with signs reminding users that hazardous wastes cannot be disposed of as trash.
- LBNL will update its emergency preparedness and response program on an annual basis, and will provide copies of this program to local emergency response agencies and to members of the public upon request.
- Prior to construction of any project that may add significant sewer load to the city sanitary sewer system, LBNL would investigate the potential impact of the project on the city system. LBNL would identify mitigation measures to accommodate the sewer load if the impact investigation indicates that the city system could not accommodate the additional sewage. LBNL will reimburse the City of Berkeley and/or EBMUD for its fair share of allowable and necessary sewer improvement capital costs which are needed to accommodate increased demand and mitigate sewer impacts resulting from implementation of the LBNL LRDP.

APPENDIX B

LAND USE ANALYSIS

SETTING AND IMPACTS

The project site is part of 200 acres owned by the University of California, most of which are leased to the Department of Energy (DOE). This land (and a larger surrounding area belonging to the University) is within the political boundaries of the LBNL site and is within the city limits of Oakland. Because the land is controlled by a state agency (UC) and operated by DOE, it is exempt from local zoning and planning regulations. However, it is the policy of the University and LBNL to cooperate with local agencies in planning matters to the extent feasible. The City of Oakland's General Plan designates the area for institutional use and resource conservation; therefore present and proposed uses are consistent with intended uses according to the Oakland General Plan.

The Long Range Development Plan (LRDP) for LBNL was approved by The Regents of the University of California in 1987. While this Plan and its accompanying EIR anticipate development out to an unspecified year (20XX), the Addendum to the Supplemental site-wide EIR adopted in 1997 analyzes LRDP-related buildout impacts through the Contract extension year of 2007. The LBNL LRDP organized the LBNL site into seven functional planning areas to consolidate related functions, maximize efficiency, and establish well-planned roadways, pedestrian paths and parking to minimize hazards to employees and the public. The project site is located in the Materials and Chemistry Research Area, also referred to as the East Site Materials Sciences Facilities. This plan reserved several site locations for future construction, anticipating a need for "advanced and specialized research facilities for specific programmatic needs." Therefore, construction of the Molecular Foundry on this site would be consistent with the intended implementation of the LBNL LRDP.

The LRDP anticipates that growth on the main LBNL site could increase from approximately 1.59 million gross square feet (gsf) in 1987 to approximately 2.0 million gsf at buildout. There are currently about 233,500 gsf available for development under this projection. The proposed Molecular Foundry building and accompanying Central Utility Plant building total approximately 94,500 gsf, which would leave approximately 140,000 gsf remaining to the proposed buildout anticipated in the 1987 LRDP, and analyzed in the LRDP EIR, as amended.

The LRDP projects that total population growth at LBNL could increase from approximately 2,850 in 1987 to approximately 4,750 at buildout.¹² LBNL is currently about 400 people below the population projection anticipated by the LRDP. The proposed Molecular Foundry would add

¹² Because the portion of the LBNL population identified as being located on the UC Berkeley campus actually circulates regularly between Campus and LBNL main site facilities, aggregate rather than site-specific population figures are used for planning purposes to avoid population undercounting.

approximately 140 staff, students, and visitors to LBNL, approximately 260 persons below the population level proposed in the 1987 LRDP, and analyzed in the LRDP EIR, as amended.

The Proposed Action is consistent with land use designations set forth under the LRDP. The Proposed Action would be constructed in a partially developed “open space” where a new building is anticipated in the LRDP. According to the 1987 LRDP, open space is provided to “enhance the working and research environment, to maintain landscape compatibility, and to take advantage of the mild Bay Area climate and the views. Open areas are to be set aside for employee picnics, outdoor gatherings, and exercise.” The Proposed Action would create a large and high-quality outdoor space in the expansive outdoor terrace that would serve as an outdoor meeting and recreational space for occupants of all outdoor buildings in the vicinity. It would include a mixture of paved and planted areas and would be oriented to provide optimal views.

A portion of the proposed Molecular Foundry building would also be in a “buffer zone” area as identified under the LRDP. Buffer zones do not exclude new buildings, but encourage new buildings to be designed to address, enhance and/or uphold special constraints and amenities on such sites. These constraints and amenities pertain to views, hydrology, stability, special vegetation, and building density. Each of these concerns is addressed by the Proposed Action and demonstrates consistency with the values listed in the LRDP. A consistency analysis and statement was conducted for this Proposed Action and is incorporated into this analysis.

The Proposed Action affirms and is consistent with the LRDP Goals and Objectives. The site is adjacent to both utility corridors and traffic/transit corridors. All support services have adequate capacity to serve the new building at this location. The Proposed Action is generally consistent with the LRDP’s Design Guidelines. The Proposed Action would be larger than what was initially anticipated for the particular functional planning area—the Materials and Chemical Research Area of LBNL; however, these specific area distribution estimates were identified in the LRDP as being for “general estimating purposes only” and were not intended to restrict or promote particular development levels. Regental approval was based on the aggregate space and population projections presented in the 1987 LRDP and the Proposed Action is entirely within those parameters.

Although not yet completed or approved, an update to the 1987 LRDP is in progress and does not conflict with the Proposed Action. In November 2000, a Notice of Preparation was issued for this forthcoming LRDP and new LRDP EIR. This LRDP would project growth and development at LBNL for approximately the next twenty years; growth in population and in developed space is expected to occur at the same rates as have been occurring at LBNL during the past 15 years—approximately 1.3 percent per year. The Draft LRDP and LRDP EIR are expected to circulate for public review in 2003. The proposed Molecular Foundry Proposed Action would be reflected and accounted for in these new LRDP and LRDP EIR.

APPENDIX C

SOCIOECONOMIC ANALYSIS

SETTING AND IMPACTS SUMMARY

The proposed Molecular Foundry would occupy an undeveloped site, now partially occupied by a paved surface parking lot. The Proposed Action would therefore not displace existing housing or residents. The Proposed Action would extend the existing roadway network adjacent to the project site. However, the new roadway segment would directly serve the project site, which would not include residential uses.

Growth at the LBNL site is controlled by the 1987 LRDP. The LRDP projects that total population growth at LBNL could increase from approximately 2,850 in 1987 to approximately 4,750 at buildout. LBNL is currently approximately 400 people below its population projection. The proposed Molecular Foundry would be occupied by approximately 137 staff, students, and visitors to LBNL.¹³ This would result in a remaining balance of approximately 260 persons below the 4,750 growth-projection that is identified in the 1987 LRDP, and analyzed in the LRDP EIR, as amended. Of these 137 staff positions, 6 would be directors who currently work at LBNL and would not be replaced; approximately 36 would be graduate students from the UC Berkeley campus who not would have driving access to LBNL; approximately 42 would be visiting scientists; and 29 would be filled from scientific, technical, and administrative professionals new to the LBNL site. An additional 24 professional positions would be filled by staff already working elsewhere at LBNL.

It is assumed that many of the new employees would already live in the Bay Area. Visitors would be temporary and would therefore be visiting and/or already employed elsewhere in the Bay Area. The Proposed Action would therefore not directly or indirectly induce substantial growth in the area.

¹³ This analysis uses 140, instead of 137, to use round numbers and to present a more conservative analysis.

APPENDIX D

ENVIRONMENTAL JUSTICE ANALYSIS

SETTING

The LBNL complex is located in Alameda County, with a large portion located within the Berkeley city limits, and a smaller portion located within the Oakland city limits. The University of California, Berkeley, is adjacent to LBNL, and the nearest residential and commercial neighborhoods are located within the City of Berkeley. The nearest Oakland properties consist of designated open space areas. Unincorporated areas of Contra Costa County lie to the north and east, most of which are also designated open space areas.

Census 2000 revealed that Alameda County's population is approximately 51 percent non-white or more than one race: 15 percent black or African American alone, less than 1 percent American Indian and Alaska Native alone, 20 percent Asian alone, less than 1 percent Native Hawaiian and other Pacific Islander alone, 9 percent "some other race alone," and approximately 6 percent two or more races. In the City of Berkeley, the population is approximately 41 percent non-white or more than one race, and in the City of Oakland, the population is approximately 69 percent non-white or more than one race. Table D.1 below, compares the racial breakdown of Alameda County, Berkeley, Oakland, and census tracts located near LBNL in Berkeley.¹⁴

Census 2000 also identifies median¹⁵ household incomes and family incomes. Table D.2, below, compares median household incomes and family incomes in Alameda County, the cities of Berkeley and Oakland, and the residential and commercial census tracts nearest LBNL.

IMPACTS

The project site is located in Alameda County, within Oakland's city limits. Both Alameda County and Oakland have large non-white populations. In Alameda County, however, the largest single racial group is white (48.6%); in Oakland the largest single racial group is black or African American (35.7%). In residential and commercial areas located in the vicinity of LBNL, the single largest racial group is white (63.5% to 88.9%).

¹⁴ Census tract 4216 is located northwest of LBNL and includes the neighborhoods north of the UC Berkeley campus; census tract 4227 is southwest of LBNL, and census tracts 4237 and 4238 are in the hilly areas further southwest of LBNL and south of the UC Berkeley campus.

¹⁵ Median income is the "middle" income: one half of all incomes are below the median and one half are above the median.

**TABLE D.1
COMPARISON OF SELF-IDENTIFIED RACIAL IDENTITIES (PERCENTAGE)
ALAMEDA COUNTY, BERKELEY, OAKLAND, AND
CENSUS TRACTS 4216, 4227, 4237 AND 4238**

Race	Percentage of Population						
	Alameda County	City of Berkeley	City of Oakland	Census Tract 4216	Census Tract 4227	Census Tract 4237	Census Tract 4238
White alone	48.6%	59.2%	31.3%	83.5%	63.5%	70.3%	88.9%
Black or African American alone	14.7%	13.6%	35.7%	1.9%	3.2%	2.6%	1.9%
American Indian and Alaska Native alone	0.6%	0.5%	0.7%	0.0%	0.2%	0.2%	0.3%
Asian alone	20.4%	16.4%	15.2%	9.0%	20.0%	19.4%	6.0%
Native Hawaiian alone and Other Pacific Islander alone	0.6%	0.1%	0.5%	0.2%	0.0%	0.0%	0.0%
Some other race alone	9.0%	4.6%	11.7%	0.2%	4.9%	2.1%	0.5%
Two or more races	6.0%	5.6%	5.0%	5.2%	8.2%	5.3%	2.4%
Total	99.9%*	100.0%	100.1%*	100.0%	100.0%	99.9%*	100.0%

* Less than 100% due to rounding error.

SOURCE: Census 2000, ESA (2002)

**TABLE D.2
COMPARISON OF FAMILY AND HOUSEHOLD MEDIAN INCOMES (1999)
ALAMEDA COUNTY, BERKELEY, OAKLAND AND
CENSUS TRACTS 4216, 4227, 4237 AND 4238**

2000 Income	Alameda County	City of Berkeley	City of Oakland	Census Tract 4216	Census Tract 4227	Census Tract 4237	Census Tract 4238
Median Household Income	\$55,946	\$44,485	\$40,055	\$95,868	\$25,625	\$40,660	\$105,011
Median Family Income	\$65,857	\$70,434	\$44,384	\$125,896	\$48,846	\$103,628	\$149,802

SOURCE: Census 2000, ESA (2002)

Household and family median incomes are lower than County median incomes in both Oakland and in the City of Berkeley's census tract 4237, which has a high student population. Median household incomes alone are lower than the County median household income in Berkeley, Oakland, and City of Berkeley's census tracts 4227 and 4237. Median family incomes are higher than County median incomes for the City of Berkeley overall, as well as for the City of Berkeley census tracts 4216, 4237, and 4238.

As already discussed in Section 4.14, *Hazards and Human Health*, the Proposed Action would not pose a hazard to human health. In addition, the Proposed Action would not result in the elimination of jobs, nor would it result in the removal of persons or housing from the site. Because of the high incomes and the low numbers of non-white residents in residential areas near the project site, the Proposed Action would not have a specific economic, social, or human health effect on minority or low-income populations in these areas.

APPENDIX E

CHANGES TO THIS ENVIRONMENTAL ASSESSMENT

A Draft Environmental Assessment was circulated for Agency and public review and comment on December 10, 2002; comments were requested to be received by January 13, 2003. One commenter, the East Bay Municipal Utility District (EBMUD), responded. Their comments have been addressed in this Final EA, and are reflected in the additions and changes to this document, identified below. A few additional refinements have been made by LBNL. None of these additions, changes, or refinements represents the introduction of substantial new information that would indicate a new or significant impact or that would change the conclusions drawn from this analysis.

(New or added text is in bold)

1. The “Draft” Environmental Assessment is now referred to as the “Final” Environmental Assessment throughout the document. This document is currently dated February 2003.
2. Appendix E—“Changes to this Environmental Assessment,” has been added to the table of contents and to this section.
3. Page vi. Text has been added to the Executive Summary to describe the Final EA document.
4. Page 18. To provide additional context, the following text has been added to the discussion of storm drainage:

This would be added to the approximately 20 acres of existing impervious surface in the watershed. About half of this impervious surface is on land managed by LBNL.

5. Page 19. The following text has been incorporated into the discussion on landscaping:

All ~~trees~~ landscaping placed by the Proposed Action would be irrigated as necessary. In addition, as part of the final design process, irrigation would be designed so as to minimize overspray and runoff. Irrigation and landscaping are expected to be consistent with the State Model Water Efficient Landscape Ordinance AB325.

6. Page 20. The following text has been incorporated into the discussion on landscaping:

The natural zone includes the fire-resistant ground cover for erosion control, as well as decorative plant materials that would be selected based on their indigenous, ~~water-saving,~~ **and** low-maintenance, **and especially water-saving** characteristics.

7. Page 20. The following text has been incorporated into the discussion on water supply:

The Proposed Action would install low-flow plumbing fixtures and water-saving appliances; **other devices and new technology (e.g., drip irrigation, re-circulating cooling systems, etc.) would be considered or employed where practicable to further water conservation.** Water supply would be separated into industrial and domestic cold water systems. The industrial system would serve lab sinks and equipment; the domestic system would serve kitchen, restroom, and drinking fountain functions. Water pressure range would be 35 to 50 pounds per square inch. Engineering and safety features such as backflow preventers would be installed where appropriate and feasible. **All new projects at LBNL are subject to EBMUD's Water Service Regulations at the time of application for service.**

8. Page 24: The following text has been deleted from the discussion of the No Action Alternative:

~~Instead, a similar facility would be constructed elsewhere by DOE, the location of which has not been identified and is too speculative to analyze. Such a facility would neither be located at nor affiliated with LBNL.~~

9. Pages 39-40: The following text has been incorporated into the discussion on Public Utilities:

The LBNL site receives its water from the East Bay Municipal Utility District (EBMUD). The proposed project would be served by EBMUD's Shasta Pressure Zone (PZ), which provides water service to customers within an elevation range of 900 to 1050 feet, and the Berkeley View PZ, which provides water service to customers within an elevation range of 1,050 to 1,250 feet. The LBNL site receives its water supply via a 12-inch meter in Campus Drive in the Shasta PZ and via a 6-inch meter in Summit Road from the Berkeley View PZ. In addition, Department of Energy (DOE) owns and maintenance two 200,000-gallon storage tanks on site for emergency supply in the event of interruption of EBMUD's service and a third 200,000-gallon emergency tank is under construction in the East Canyon area upslope of the project site. The existing distribution system supplies water for all laboratory uses and has sufficient capacity to meet the flow rate and duration requirements for both daily use and fire protection. Although the project would be expected to increase use by up to approximately 2,500 gallons per day, it would not cause a significant impact as the two existing EBMUD PZs have combined storage capacity of 3.1 million gallons. The primary source of its supply is the Shasta Tank, and EBMUD's one million-gallon capacity Berkeley View Tank provides a secondary water supply source. In addition, two 200,000-gallon on-site storage tanks hold an emergency supply in the event of interruption of EBMUD service; a third 200,000-gallon emergency water tank is under construction in the East Canyon Area.

10. Pages 40-41: The following text has been incorporated into the discussion on Public Utilities:

All LBNL sanitary sewage runs through the City of Berkeley's basin No. 17. The City Department of Public Works has confirmed that there is considerable remaining average and peak wet weather capacity in this basin. The proposed project would most likely be directed into subbasin #17-003; this subbasin has more than adequate average and peak wet weather capacity to accommodate the estimated 1,200 gpd sanitary sewage flows from the proposed project.

The main concern with sewer flow in this subbasin and region wide in the EBMUD system is the infiltration and inflow of stormwater into the sanitary sewer system due to the poor condition of aging sewer pipes (known as "infiltration / inflow" or "I/I"). LBNL has aggressively acted to address infiltration / inflow problems in its own system and has made dramatic improvements in recent years. In addition, an aggressive plumbing maintenance and upgrade effort has been undertaken during the past 15 years by LBNL, along with installation of water saving devices and systems, to substantially lower average sewer flows as well. The savings realized by these on-going efforts has reduced both peak wet weather as well as average sewer flows by well over half. Moreover, LBNL's peak wet weather infiltration / inflow rate is less than half of that of the City of Berkeley's and it is approximately only ten-percent of that found in EBMUD's district. LBNL continues to seek ways in which to reduce both water consumption and sewage generation.

In 1984, LBNL's allocated sewer flow was approximately 200,000 gallons per day (gpd). Due to historic infiltration / inflow, that amount was much higher during peak wet weather events. In recent years, due to the aforementioned efforts, that average annual sewer flow has been reduced by approximately 100,000 gpd, and by even much greater amounts during wet weather. The proposed Molecular Foundry is expected to generate less than 1,200 gpd of sewage. This incremental amount falls well below what was allocated to LBNL previous to its sewer upgrade projects. It is also consistent with the 1987 LRDP EIR, as amended, which anticipated, analyzed, and found less-than-significant impacts for buildout levels of sanitary sewage at much higher than current levels, even with inclusion of the proposed project. Moreover, because the sewer lines installed for the Molecular Foundry would be brand new, state-of-the-art, and virtually free of stormwater infiltration, the proposed project would be incremental in both dry and wet weather and would not contribute to the problem of I/I surplus flows during peak wet weather events.

Through the University of California, LBNL currently pays the City of Berkeley for assessed sewer services. In addition, the University has contributed to the City of Berkeley's sewer upgrade program. ~~These improvements~~ This program is intended to increase wet weather flow capacity and decrease infiltration / inflow conditions. ~~In 1990, UC agreed to contribute \$250,000 per year to the City of Berkeley sewer improvements that would mitigate the impact of and accommodate new University projects.~~ L

11. Pages 56-57. The following text has been incorporated into the discussion on air quality impacts:

~~Chemicals used in laboratories would generally be handled in very small quantities
No solid chemical would exceed more than a few hundred grams (i.e., probably on the~~

~~order of up to a few hundred grams~~ **on the order of up to a few hundred grams**) and ~~no~~ liquids would **tend to be handled in quantities of a few centiliters or less** ~~exceed more than a gallon~~. Also, ~~only a few small gas cylinders containing flammable or toxic substances would be stored on-site~~. This is consistent with the nature of the experiments that deal with substances and properties on a micro- and nanoscale. ~~Since the amounts of chemicals in the laboratory would be low, there would be no~~ **Any** quantifiable air quality public health risk from laboratory **activities would be extremely small and well below significance thresholds.**(footnote 11) **In addition, the proposed Molecular Foundry project does not include the use of radioactive materials.**

Footnote 11: ¹

Current estimates indicate that ~~fenceline~~ concentrations of TAC emissions from the proposed project would be so low as to be immeasurable **or extremely small at the nearest residential neighborhood fenceline**. In fact, preliminary screening estimates indicate that the entire expected annual chemical inventory of the proposed Molecular Foundry would be so small that, were it to be emitted at a 100% annual rate (a physically impossible, conservative scenario), the vast majority of these chemicals would be unlikely to even approach BAAQMD regulatory thresholds at the LBNL fenceline.

12. Page 57: The following text has been incorporated into the discussion on air quality impacts:

At that distance, operational TAC emissions from the Proposed Action are expected to be **extremely small or** immeasurable.

13. Page 60: The following text has been changed in the discussion of public utility impacts to reflect a refined calculation for water demand:

Although the Proposed Action is expected to increase **water** use by **less than** approximately **1,500** ~~7,050~~ gallons per day, it would not cause a significant impact because relatively unrestricted water volume is available from EBMUD.

14. Page 60: The following text has been changed in the discussion of utility impacts:

The proposed Molecular Foundry would **be expected to generate less than 1,200 gallons per day of wastewater, which would flow through new project sewer lines** ~~connected~~ to existing sewer lines. Peak wastewater capacity of the building would be 185 gallons per minute, although actual usage rates would be far lower. **This would be well within the wastewater volumes projected, mitigated for, and adopted in the 1992 LRDP EIR and 1997 Addendum to the LRDP EIR. It would also not contribute to a substantial LBNL-wide increase in wet weather flows, as LBNL has worked in recent years to substantially reduce its peak wet weather flows and has effectively addressed its previous infiltration/inflow problems.**

As part of the proposed action, LBNL will continue to seek to integrate and find opportunities for controlling and/or reducing the amount of infiltration and inflow into the existing sanitary sewer system.

15. Page 64: The following text has been deleted from the discussion of the Environmental Consequences of the Proposed Alternatives:

~~The No Action alternative would likely result in a site elsewhere, however, not at LBNL. No specific site has been identified. Project impacts would likely be similar to those identified on the LBNL site, although without a specific site, any description of potential environmental effects would be speculative.~~

16. Page 71: The following text has been deleted from the No Action Alternatives column of the Summary of Action Alternatives Table:

~~Elsewhere, non-LBNL affiliated~~