



Office of the City Manager

WORK SESSION
October 30, 2012

To: Honorable Mayor and Members of the City Council
From:  Christine Daniel, City Manager
Submitted by: Eric Angstadt, Director, Planning and Development
Subject: 20th Anniversary of Development Agreement with Bayer

INTRODUCTION

A 30-year Development Agreement was entered into between Bayer Corporation, formerly Miles Inc., and the City of Berkeley in February 1992. Amendments to the DA were approved in 1998 and 1999.

Bayer submits a status report on implementation of its Development Agreement (DA) to the City every year. In the tenth, fifteenth, twentieth and twenty-fifth year, the DA calls for a more comprehensive review “for the purpose of assessing whether the City’s reasonable expectations as reflected in the Agreement for achievement of the public benefits associated with the Agreement are being met.”

As part of the twentieth year review, Bayer representatives will make a presentation and answer questions at the October 30, 2012 Council Work Session. The presentation will provide an update of development and contributions.

BACKGROUND

The Bayer project authorized replacement or upgrading of a group of 38 older, non-historic structures totaling 520,000 square feet in floor area. New construction totaling 1,167,000 square feet was approved as part of the DA, and was allocated on a block-by-block basis for a range of general land use categories, including production, administration, laboratories, warehouse, maintenance, utility, and parking. A set of development standards and design guidelines were also approved. The project was originally anticipated to increase total employment on the site from approximately 600 to 980 jobs at full build-out. The 1999 Amendment increased the maximum employee projection to 1,600.

The Bayer DA is the only development agreement in Berkeley; the DA stipulates that City regulations would not change during its 30-year life. This provided Bayer with enough certainty to make a major investment in the site. In exchange, Bayer was required to make contributions to the community.

Exhibit F from the DA, attached, summarizes the public infrastructure and community programs that were required. Additional exhibits in the DA and in the annual reports provide more detail about the programs listed below.

- Biotechnology Education Training Program
- Employment-Hiring Program
- Affordable Housing Program
- Child Care Program
- Public Infrastructure Plan
- Transportation Demand Management Program
- Historic Preservation and Public Art
- Environmental Protection
- Community Programs
- Animal Care and Usage
- Peace and Justice Program

Annual Reports are submitted to each City Council member and secretaries for the commissions listed below.

PLANNING

ZAB

ANIMAL CARE

PEACE & JUSTICE

HUMAN WELFARE

HOUSING

DESIGN REVIEW

COMMUNITY HEALTH

DISASTER

LANDMARKS

LABOR

ENVIRONMENTAL

PARKS & REC

TRANSPORTATION

Each Annual Report provides cumulative information about the total square footage developed, the schedule for future development, and implementation status for the public infrastructure requirements, community programs, and mitigations from the Environmental Impact Report.

Staff reviewed the DA requirements in detail and Bayer has complied with its requirements.

CONTACT PERSON

Wendy Cosin, Deputy Planning Director, Planning, 981-7402

Attachments:

- 1: Development Agreement Exhibit F – Summary of Public Infrastructure, Community Programs and Development Fees
- 2: Bayer Annual Report

EXHIBIT F
SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES

The following table presents a summary of the obligations of the parties in the areas of environmental mitigations, public infrastructure and community programs and benefits. All dollar amounts are stated in terms of 1991 dollars. Dollars to be paid in years two through thirty of the Agreement shall be indexed for inflation to the San Francisco Bay Area full Consumer Price Index (CPI), using as a basis the CPI published January 1991.

Some amounts represent fixed or capped obligations on the part of Miles; these are indicated by a "(c)" next to the cost figure. Other amounts represent an estimate of the cost to Miles of performing certain future obligations generally described in Exhibits G-1 through G-10 and are not capped. These are indicated by an "(e)".

Some obligations, including payments to the City or others, occur with the signing of the Agreement, either as anticipated community benefits or as required environmental programs and mitigations. These are generally noted in the summary as annual, periodic or future one-time obligations, and are further indicated by an "(a)" next to the cost figure. Other obligations occur only in relation to the actual development of the site. These are generally noted in the summary as becoming due in conjunction with construction of a particular building or building phase, and are further indicated by a "(b)" next to the cost figure.

Annual costs do not reflect the first year costs, only subsequent years.

**EXHIBIT F
SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES**

PROGRAM/DEVELOPMENT FEES	RESPONSIBLE	MONITOR	TIMING/ FREQUENCY	COSTS		
				INITIAL/ ONE TIME	ANNUAL	30-YEAR COST
Employment and Training						
Fund the first year expenses of the Program Director	Miles	City, Planning Department	Upon approval of the Development Agreement	\$100K	N/A	\$100K (c)(a)
Biotech Academy within the Berkeley High School	Miles	City, Planning Department	At the first Annual Review and distributed over the next four years ¹	\$560K	N/A	\$560K (c)(a)
Biotech Career Institute in conjunction with Community College system	Miles	City, Planning Department	At the first Annual Review and distributed over the next four years ¹	\$440K	N/A	\$440K (c)(a)
Provide matching funds for Biotech Academy/Institute	Miles	City, Planning Department	At years six through nine of the Development Agreement ¹	N/A	\$25K-\$75K	\$100K-\$300K (c)(a)
Fund a Biotech Academy/Institute student summer hire program	Miles	City, Planning Department	Upon approval of the Development Agreement and every year thereafter	\$10K	\$10K	\$300K (c)(a)
Fund Kindergarten through 8th grade projects	Miles	City, Planning Department	Upon approval of the Development Agreement and every year thereafter	\$10K	\$10K	\$300K (c)(a)
Fund three year grant/writer position for nonprofit job training agencies	Miles	City, Community Development Department	At the first Annual Review and the next two years thereafter	\$50K	\$50K	\$150K (c)(a)
Employ construction hires through the City's First Source Program	Miles	City, Community Development Department	As required but not more than 700 hires	\$350K	N/A	\$350K (c)(b)
Housing and Child Care						
Contribute to the City's Housing Trust Fund to create affordable housing	Miles	City, Community Development Department	At the first Annual Review and then ten years thereafter	\$155K	\$46K	\$615K (c)(a)

¹ Planning years are illustrative only and might change based on outside funding.

EXHIBIT F
SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES

PROGRAM/DEVELOPMENT FEES	RESPONSIBLE	MONITOR	TIMING/ FREQUENCY	INITIAL/ ONE TIME	COSTS	
					ANNUAL	30-YEAR COST
Sixth Street repaving	Miles	City, Public Works Department	During construction of the main gate or Department of Public Works schedule	\$20K	N/A	\$20K (e)(b)
Construct the following traffic improvements:						
Install signal at Seventh and Parker (50% contribution)	Miles	City, Public Works Department	During construction of the parking structure	\$30K	N/A	\$50K (e)(b)
Modify signal at Seventh and Dwight	Miles	City, Public Works Department	During upgrade of surface parking lot	\$50K	N/A	\$50K (e)(b)
Install signal at Seventh and Heinz	Miles	City, Public Works Department	During construction of Block B4	\$50K	N/A	\$50K (e)(b)
Move parking on Seventh and re-stripe to create three lanes	Miles	City, Public Works Department	During construction of the first building on Seventh Street	\$20K	N/A	\$20K (e)(b)
Close Seventh street roadway north of Dwight Way	Miles	City, Public Works Department	During upgrade of surface parking lot	\$20K	N/A	\$20K (e)(b)
Contribute to improvements designed to mitigate cumulative impacts and provide area wide improvements to the traffic system	Miles	City, Public Works Department	Per Department of Public Works schedule	\$1,500K	N/A	\$1,500K (e)(a)
Conduct engineering analysis of sewer system	Miles	City, Public Works Department	Nine months after approval of Development Agreement	\$50K	N/A	\$50K (e)(a)
Contribute to improvements designed to mitigate cumulative impacts and provide area wide improvements to the sanitary sewer system	Miles	City, Public Works Department	As required	\$600K	N/A	\$600K (e)
Improve storm drains under 4th Street and Dwight Way	Miles	City, Public Works Department	During construction of Block A2 and C1, respectively	\$600K	N/A	\$600K (e)(b)

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SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES**

PROGRAM/DEVELOPMENT FEES	RESPONSIBLE	MONITOR	TIMING/ FREQUENCY	INITIAL/ ONE TIME	COSTS ANNUAL	30-YEAR COST
Disconnect site from Parker Street storm sewer system and install new Miles storm sewer system	Miles	City, Public Works Department	During construction of Block A3	\$200K	N/A	\$200K (c)(b)
Contribute to improvements at Aquatic Park	Miles	City, Public Works Department	24 months after approval of Development Agreement	\$250K	N/A	\$ 250K (c)(a)
Perform water quality study in Aquatic Park	Miles	City, Environmental Health	Twelve months after approval of the Development Agreement	\$50K	N/A	\$50K (c)(a)
Transportation						
Implement a Trip Reduction Program	Miles	City, Planning Department	In conjunction with the first Annual Review	\$30K	\$30K	\$900K (c)(b)
Provide a BART Shuttle for employees	Miles	City, Planning Department	Upon approval of Development Agreement	\$5K	\$5K	\$150K (c)(a)
Conduct neighborhood parking impact survey	Miles	City, Planning Department	Ten years following approval of the Development Agreement and then every five years thereafter	\$1K	\$1K	\$5K (c)(a)
Provide two bus shelters at 7th Street and Dwight Way	Miles	City, Planning Department	During upgrade of surface parking lot	\$15K	N/A	\$15K (c)(b)
Fund and implement a bike route plan	Miles	City, Planning Department	Six months after approval of Development Agreement	\$50K	N/A	\$50K (c)(a)
Historic Preservation and Public Art						
Assemble and display a historical exhibit	Miles	City, Planning Department	1997	\$150K	N/A	\$150K (c)(a)

**EXHIBIT F
SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES**

PROGRAM/DEVELOPMENT FEES	RESPONSIBLE	MONITOR	TIMING/ FREQUENCY	INITIAL/ ONE TIME	COSTS	
					ANNUAL	30-YEAR COST
Commission public art (1% of Administration building construction costs)	Miles	City, Planning Department	During construction of Administration Building	\$112K	N/A	\$112K (e)(b)
Environmental Protection						
Hazardous Operations Studies and Off-Site Consequence Analysis	Miles	City, Environmental Protection	As required during construction of utility and production buildings	\$61K	N/A	\$61K (e)(b)
Bio-safety Review Program	Miles	City, Environmental Protection	Six months after approval of Development Agreement	\$16K	\$1K	\$45K (e)(a)
Emergency Preparedness Program:	Miles	City, Environmental Protection	Six months after approval of Development Agreement			
Emergency Response/Business Plan	Miles	City, Environmental Protection	Annual costs every year	\$7K	\$1K	\$36K (e)(a)
On-site training of City Staff	Miles	City, Environmental Protection	Annual costs every year	\$16K	\$6K	\$190K (e)(a)
Emergency Response Exercises	Miles	City, Environmental Protection	Annual costs every year	\$33K	\$9.5K	\$308.5K (e)(a)
Bulk Hazard Materials Truck Routes	Miles	City, Environmental Protection	Annual costs every year	\$2K	N/A	\$2K (e)(a)
Risk Communication Program	Miles	City, Environmental Protection	Six months after approval of Development Agreement	\$31.5K	\$11.5K	\$365K (e)(a)
Energy Conservation Program	Miles	City, Environmental Protection	Twelve months after approval of Development Agreement	\$58K	\$8K	\$290K (e)(a)
Water Conservation Program	Miles	City, Environmental Protection	Twelve months after approval of Development Agreement	\$59.5K	\$9.5K	\$335K (e)(a)
Ammonia refrigeration Risk Management Prevention Program	Miles	City, Environmental Protection	Prior to operation of the system	\$100K	N/A	\$100K (e)(b)

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SUMMARY OF PUBLIC INFRASTRUCTURE, COMMUNITY PROGRAMS AND DEVELOPMENT FEES

PROGRAM/DEVELOPMENT FEES	RESPONSIBLE	MONITOR	TIMING/ FREQUENCY	INITIAL/ ONE TIME	COSTS	
					ANNUAL	30-YEAR COST
Waste Reduction Program	Miles	City, Environmental Protection	Nine months after approval of Development Agreement	\$33K	\$13K	\$410K (c)(a)
Dust Suppression Program	Miles	City, Environmental Protection	Prior to first demolition/construction	\$3K	\$1K	\$32K (c)(b)
Noise Reduction Program	Miles	City, Environmental Protection	Prior to first demolition/construction	\$3K	\$1K	\$32K (c)(b)
Surface Water Run-off Program	Miles	City, Environmental Protection	Six months after approval of Development Agreement	\$23K	\$8K	\$255K (c)(a)
Community Programs						
Hire a consultant to assist with the establishment of a Community Service Program and Board		City, Planning Department	12 months after approval of Development Agreement	\$30K	N/A	\$30K (c)(a)
Establish and fund a Community Service Program	Miles/ City	City Planning Department/Miles	At the first Annual Review and every year thereafter. NOTE: at year six, annual required contributions will decrease from \$100K to \$20K	\$100K	\$100K/\$20K	\$1,000K (c)(a)
Animal Care and Use						
Fund outside research into alternatives to animal use	Miles	City, Environmental Department	At the first Annual Review and every year for the next four years	\$25K	\$25K	\$125K (c)(a)

30-Year
DEVELOPMENT AGREEMENT

City of Berkeley and Bayer HealthCare

signed February 25, 1992

20th Anniversary Compliance Report 2011



Science For A Better Life

CONTENTS

5	INTRODUCTION
9	PAYMENTS 2011
11	SITE DEVELOPMENT 2011
15	PUBLIC INFRASTRUCTURE
18	ENVIRONMENTAL PROGRAMS
21	RISK MANAGEMENT
23	COMMUNITY BENEFITS
29	EXHIBIT H: <i>Monitoring and Reporting Program</i>
42	EXHIBIT B: <i>Mitigation Monitoring and Reporting Program for First Major Amendment, 1999</i>
45	INDEX

INTRODUCTION

“[Bayer] is engaged in the business of developing, manufacturing and distributing human health care products and has been conducting this business for more than 70 years . . . within the City. . . . Typically, this requires a development process with an average time frame of 10–12 years and an average investment of in excess of \$200 million. As a consequence, long range planning is mandatory for business, financial, and competitive reasons.”

—Development Agreement, 1992, page 4

In 1992, Bayer HealthCare (then Miles, Inc.) signed an historic 30-year Development Agreement (DA) with the City of Berkeley. The DA provides the company consistent and streamlined site development permit processes in return for a broad array of mitigations for the benefit of the City. In its 19th year, the DA stands as one of California’s most creative and successful public/private partnerships.

- **Bayer’s 45-acre site today is at the hub of the Bay Area’s expanding green economy.** In 1992, the original site comprised 30 acres with the former Cutter Laboratories at the center of a collection of antiquated factories.
- **Bayer today is the largest for-profit employer in Berkeley,** with nearly 1,300 permanent employees (including 70 from Bayer Technology Services). This is about 200 more positions than the DA projected over 30 years. Our employees come from 47 countries, speaking 32 languages.
- **Bayer is the second-largest biotechnology employer in the Bay Area.** Our Berkeley site is the center of biotech development and manufacturing for Bayer worldwide.
- **“Mitigation payments” that began with the DA have evolved into a vibrant program of local Corporate Social Responsibility** which includes philanthropy, employee volunteerism, and environmental leadership.

ABOUT THIS REPORT

This annual report, as required by Article 4 of the Development Agreement, presents a summary of requirements of the 1992 DA and the 1999 Amendment, along with an update on Bayer's compliance for the calendar year 2011. Previous annual reports, a copy of the 1999 First Amendment, and the report to the City Council summarizing the first ten years of the Development Agreement can be found in the City Clerk's office or by contacting the City Manager's office.

A brief summary of 2011 community activities includes:

- **Philanthropy:** \$473,500 in local grants to education, environmental, and patient groups along with community institutions including the Berkeley Public Library Foundation, the Berkeley Food and Housing Project, and the Alameda County Food Bank. Biotech Partners, the award-winning workforce development program that began with the DA, was the inspiration in 2011 for an additional \$540,000 grant from the Bayer USA Foundation, based in Pittsburgh, Pennsylvania, to establish a regional science education institute at California State University, East Bay. The STEM Institute is intended to bring major improvements to schools throughout Northern California.
- **Volunteerism:** Our employee volunteers supported local organizations such as Community Resources for Science, the Alameda County Food Bank, Family House, and Save the Bay. Bayer teams participated in the Northern California Hemophilia Foundation's annual Hemophilia Walk, Camp Hemotion (a summer camp for children with hemophilia), along with the National MS Society's Waves to Wine and MS Walk and the San Francisco AIDS Ride, among others, in support of our patients.
- **Sustainability:** In 2011 Bayer was the proud recipient of the Governor's Environmental and Economic Leadership Award, the state's highest environmental honor. Bayer was also instrumental in founding the East Bay Environmental Network, a peer-to-peer group of professionals in public agencies, advanced manufacturing, property management, and non-profit organizations working together to advance environmental initiatives within our organizations.
- **Public Safety:** In 2011 Bayer moved its U.S. Innovation Center research and development facility to San Francisco's Mission Bay, and closed its former site of nearly 53 acres in Richmond. Bayer then opened the vacated facility to local public safety agencies, including police departments from Berkeley, Richmond and Oakland, the FBI, and the federal Bureau of Alcohol, Tobacco, and Firearms, among others, for use as a training facility. The response has been gratifying.

“I would like to take the opportunity to express our gratitude at being able to utilize your Richmond campus for our tactical training. I cannot overstate the value of such a location in ensuring our readiness to respond to various incidents. The ability to move about the campus freely and the diversity of buildings allow us to conduct realistic training in a ‘live’ environment. I know of no similar real estate available for training.”

Special Agent Gregory W. Walton—FBI, San Francisco SWAT Team

DA Payments Since 1992

Year	Payments (unadjusted for inflation)
2011	\$ 677,103
2010	\$ 812,965
2009	\$ 875,442
2008	\$ 832,979
2007	\$ 692,222
2006	\$ 619,649
2005	\$ 499,072
2004	\$ 551,636
2003	\$ 1,032,157
2002	\$ 815,040
2001	\$ 1,170,591
2000	\$ 1,204,052
1999	\$ 928,004
1998	\$ 577,484
1997	\$ 612,048
1996	\$ 1,058,399
1995	\$ 630,358
1994	\$ 991,975
1993	\$ 977,270
1992	\$ 728,186
Total	\$16,386,631
	\$ 20,736,456 (adjusted for inflation)

PAYMENTS 2011

PROJECT	Mandated Annual Fee with 2011 cpi	Paid 2011
Public Infrastructure		
Aquatic Park —G5-D, 1999 Amendment Exhibit 10: improve water quality, landscaping, provide annual maintenance	\$8,050	\$8,050
Environment		
Transportation Demand Management Program —G6-A4: goal for employee commutes is 1.5 passengers per vehicle	\$55,000 (estimated)	\$400,471
Vanpools (3)		\$31,823
Amtrak Shuttle		\$44,595
Commuter Checks		\$324,053
Ashby BART Shuttle G6-B—operating morning and evening peak commute hours	\$5,000 (estimated)	\$93,422
Community Benefits		
Biotech Partners	n/a	\$125,415
General Operating Support —G1-IB	\$33,000	\$33,000
Community College Student Stipends —G1-A8: covers tuition, books, childcare, housing of low-income program participants	\$17,710	\$17,710
Summer Internships for Berkeley High School entering seniors—G1-IIB	Goal is 15 @ \$1,000	\$15,015
Full-Year Internships for community college students—G1-A9	Goal is 8 @ \$10,000	\$57,526
Annual Career Awareness Conference for high school students—G1-IID	n/a	\$2,164
Summer Training for Berkeley High School teachers —G1-IIE	n/a	none applied
Berkeley Public Education Foundation		
Grades K–8 Science Curriculum —GII-F	\$16,100	\$16,100
Middle School Science Fairs —GII-C	n/a	none held
Sick Child Care Program		
Daily urgent care for qualifying low-income families—G4-A3	\$16,100	\$16,100
BANANAS		
Health and Safety Training —G4-A4	\$15,295	\$15,295
Animal Usage		
(All animals were moved off of Bayer's Berkeley site in 2008.)		
Stipend for community representative on City's IACUC—G-10	n/a	\$2,250
TOTAL 2011 PAYMENTS		\$677,103



Site Development 2011

Development Agreement Article 3 and Exhibits C, D, and E; 1999 Amendment

In 2011 the Berkeley site continued to accommodate all steps in the biotech operations and manufacturing process including product engineering and process development, procurement, cell fermentation, purification, sterile fill/freeze drying, packaging, warehousing, quality assurance and quality control, and corporate administration.

Square Footage Developed by Use and Location

YEAR	PRODUCT MANUFACTURING		RESEARCH & DEVELOPMENT		UTILITY		ADMINISTRATION		TOTAL FOR YEAR
	SQ. FEET	SITE	SQ. FEET	SITE	SQ. FEET	SITE	SQ. FEET	SITE	
2011	0		0		0		0		0
2010	0		0		0		0		0
2009	0		0		0		0		0
2008	0		0		0		0		0
2007	0		0		0		0		0
2006	0		32,346	B66	3,200	B62A	0		35,546
2005	0		0		0		0		0
2004	0		0		0		0		0
2003	0		0		0		0		0
2002	0		84	B1	0		0		84
2001	0		0		0		0		0
2000	0		0		0		46,580	B2	46,580
1999	0		0		0		0		0
1998	0		0		0		839	B2	839
1997	0		0		0		0		0
1996	31,783	B3	0		0		0		31,783
1995	106,537	A1, A2	0		6,730	C2	0		118,733
					5,466	C3			
1994	20,485	A3	0		0		0		20,485
1993	2,430	A3	0		0		0		4,197
	1,767	B3							
1992	13,060	B2	0		3,600	B3	0		16,660
Total Square Footage Developed to Date Under DA									274,907

SITE DEVELOPMENT IN 2011

Although no additional square footage was developed on the Berkeley site, significant improvements were made in 2011:

Production Process Investments

The \$100 million investment initiated in 2009, to ready the Berkeley site to manufacture new generations of Kogenate® (see note), our treatment for hemophilia, continued throughout 2011 with the rehabilitation of Building 60, the “Pilot Plant” main manufacturing building. These improvements will continue over the next two years.

Employee Child Care Center

Construction commenced on Bayer’s long-awaited employee child care facility at 921 Parker, a building leased by Bayer which is directly across the street from the Berkeley site. The 150-space facility will be operated by Bright Horizons, a respected national company, and available to qualified community members to the extent Bayer employees do not fill all the slots. The Bright Horizons Child Care Center at Bayer will serve children from six weeks old to kindergarten-ready.

Seismic Upgrades

A seismic retrofit was completed on B53 (Quality Control Laboratory).

Environmental Projects

Various improvements were made to reduce the Berkeley site’s CO₂ footprint, water consumption and waste generation. In addition, upgrades were made to burners on steam boilers to a cleaner “ultra low NOx” model. The decrease in nitrogen oxide emissions kept the site in compliance with new, more rigorous Bay Area Air Quality Management District regulations.

Note:

INDICATIONS & USAGE

Kogenate® FS, antihemophilic factor (recombinant), is a recombinant factor VIII indicated for the control and prevention of bleeding episodes and peri-operative management in adults and children (0–16 years) with hemophilia A. Kogenate® FS is also indicated for routine prophylaxis to reduce the frequency of bleeding episodes and the risk of joint damage in children with hemophilia A with no preexisting joint damage.

IMPORTANT SAFETY INFORMATION

The most serious adverse reactions are systemic hypersensitivity reactions and the development of high-titer inhibitors necessitating alternative treatments to AHF. The most common adverse reactions observed in clinical trials were inhibitor formation in previously untreated or minimally treated patients, skin-associated hypersensitivity reactions, infusion site reactions, and central venous access device (DVAD) line-associated infections.

Kogenate® FS is contraindicated in patients who have manifested life-threatening immediate hypersensitivity reactions, including anaphylaxis, to the product or its components, including mouse or hamster proteins.

You are encouraged to report negative side effects of prescription drugs to the FDA.

Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Kogenate® FS and the Bayer cross are registered trademarks of Bayer HealthCare.

Signage

Bayer's neighborhood presence was enhanced with prominent new signs installed on the east face of Clinical Manufacturing Facility B66, on the west face of Production Building B60, and at the site entrances on Grayson Street and Dwight Way. The monument sign at the corner of Seventh Street and Grayson was also updated.

Other

On-site accessibility for persons with disabilities was improved in B56 and along Fourth Street, and sewers were upgraded.

In 2012, additional site development plans include:

- Opening of the Bright Horizons Child Care Center at Bayer, serving both Bayer employees and the greater community.
- With the child care facility comes a reconfiguration of the adjacent Parking Lot E, to accommodate parking for child care employees and required pick-up and drop-off space for parents. Part of the existing lot will also become a landscaped play area. In 2010, Bayer agreed with the City to extend, once again, the lease on Parking Lot E through December 31, 2012. This offer was made "in recognition of the progress now being made toward long-term neighborhood parking solutions, and to bring some stability to the study and implementation of the various alternatives now being explored" by the City and neighborhood artisans. In 2012 "Bayer will, without any further consideration, reclaim the entire parking lot for its own use."
- Installation of a solar power system on Parking Lot C, on the corner of Dwight Way and Seventh.
- Seismic retrofit of several buildings: B48 (Information Systems), B54 (Cold Storage), B59 (Water Treatment), B61 (Electrical) and B62 (Refrigeration).

PHASING PLAN FOR THE PROJECT

2011 STATUS REPORT AND PROPOSED SCHEDULE FOR FURTHER DEVELOPMENT

Exhibit E and 1999 Amendment Exhibit E-A

PHASE I—1992–2002

1992 estimated employees by 2002: 700; 1999 Amendment estimated: 1,200

SITE BLOCK	LOCATION	STATUS
A1 Production Block	Building 60—Production	completed 1995; \$100 million update began 2009
E1 Surface Parking Lot	Seventh Street & Dwight Way	completed 1994
C2 Production Block	Building 62—Refrigeration	completed 1995
	Building 62A—Utility	completed 2006
	Building 66—Production	completed 2006
Central Utility Plant	C3 Utility: Building 61—Electrical	completed 1995
	C3 Utility: Building 63—Steam	completed 1995
A3 Production Block	Building 5A—Production	completed 1994
B2 Production Block	Building 57A—Production	completed 1993
	B3 Production—Building 59, Water Purification	completed 1993
	Building 58—Administration	accessibility improvements completed 1998
B2 Administration	Building 64—Administration	completed 2000
	On-Site Parker Street Improvements	Phase 2 improvements completed 2000
B3 Production Block	Building 59—Water Purification	completed 1997
	On-Site Parker Street Improvements	Phase 1 completed 1997

PHASE II—1997–2012

1992 estimated employees by 2012: 800; 1999 Amendment estimated: 1,600

SITE BLOCK	LOCATION	STATUS
C1 Production/Laboratory Block		Removal of trailers completed in 2004
A2 Production/Laboratory Block	Building 1—Laboratory	Demolition completed 2006
A3 Production Block		see above
B3 Production Block	Building 55—Production	expansion/capacity increase completed 1996
Parking Structure		no activity to date

PHASE III—2002–2022

1992 estimated employees by 2022: 1,600; 1999 Amendment estimated: 1,600

SITE BLOCK	LOCATION	STATUS
Administration		No activity to date
A4 Production Block	Sewer Line, Carleton Street	completed 2004
Maintenance		No activity to date

Public Infrastructure

Exhibit F, pp. F3-5; Exhibits G-5 And G-6

The Development Agreement requires Bayer to mitigate the impacts of the company's site development on the surrounding neighborhood. Since 1992, Bayer has funded more than \$4.25 million in public improvements. As noted in the table below, a total of \$470,033 remains in the Traffic Improvements Fund. Remaining funds will be paid upon notification from the City as to the projects planned for implementation through this agreement.

Aquatic Park

In 2011, ongoing payments to the City were once again used to manage vegetation and restore and improve wildlife habitat in the park.

Traffic Improvements

In 2011, the City requested the first funds to improve the intersection of Ashby Avenue and San Pablo (1999 Amendment, Appendix B2, 3). A payment of \$187,500 was made in early 2012, with a final invoice due from the City upon completion of work late in 2012. The scope of this work will exceed that agreed to in 1999, and the City will request any additional needed funds from the Traffic Improvements Fund described below.

Sanitary and Storm Sewer Improvement Program

Bayer reports water consumption and wastewater discharges to the East Bay Municipal Utilities District on an annual basis.

SUMMARY OF PUBLIC INFRASTRUCTURE IMPROVEMENTS FUNDED SINCE 1992

Exhibit G-5

REQUIRED IMPROVEMENT	DA REFERENCE	YEAR PAID	AMOUNT
Street Improvements			
Dwight Way West of Seventh Street			
Replace existing surface drainage along Dwight Way and Fourth Street with subsurface pipe system and repave Dwight Way west of Seventh Street	G-5A1a G-5C3a	1999	\$393,770
Replace sidewalk, repair curb and gutter	G-5A1b	1995	\$33,654
Construct and landscape a cul-de-sac at the terminus of Dwight Way	G-5A1c	1996	\$57,950+
Seventh Street between Dwight Way and Carleton			
Construct a 2-inch overlay. City reports completion in 2008; billed Bayer in August, 2012.	G-5A2a	to be paid 2013	\$78,000
Replace sidewalk and repair curb and gutter	G-5A2b	1996	\$35,000+
Landscape along the street	G-5A2c	1996	\$5,301+

REQUIRED IMPROVEMENT	DA REFERENCE	YEAR PAID	AMOUNT
Carleton West of Seventh Street			
Reconstruct public right-of-way	G-5A3a	1999/2000	\$50,000 est.
Replace sidewalk and repair curb and gutter	G-5A3b	1999/2000	\$15,000 est.
Landscape along street	G-5A3c	1999/2000	\$4,000 est.
Eighth Street between Dwight Way and Parker:			
Replace and repair sidewalk	G-5A4	1994	\$41,000
Sixth Street between Dwight Crescent and Dwight Way: Repave street—done at City's expense as part of 1996 storm sewer project listed above; Bayer's share applied to sewer project.			
West Berkeley Traffic Improvements			
Seventh & Parker Streets: Install signal at intersection (split cost 50/50 with City)	G-5B1	1995	\$52,130
Seventh and Dwight Way: Modify signal and create Sixth Street/Dwight Way route with "left turn" onto eastbound Dwight Way	G-5B2	1996	\$50,000
Seventh and Dwight Way: Stripe for two travel lanes, install overhead signs to clearly mark left-turn lane.	1999 Amendment, Exhibit B1	2004	\$30,000
Seventh & Heinz Streets: Install signal at intersection (split estimated cost of \$50,000 50/50 with City)	G-5B3	1996	\$53,950
Seventh Street: Fund the removal of parking and re-striping to create three lanes	G-5B4	1997	\$50,000
Seventh Street north of Dwight Way: Fund closure in conjunction with surface parking lot upgrade. <i>Note:</i> After public meeting speed bump was installed rather than street closure.	G-5B5	1996	n/a
San Pablo and Ashby Avenues Intersection: Widen westbound Ashby to provide a right-turn lane; stripe a right-turn lane on northbound San Pablo; Extend No Parking zone on southbound San Pablo to provide right-turn lane; provide left-turn signal for eastbound Ashby; add No Parking zones on both Dwight Way approaches.	1999 Amendment, Exhibit B2, 3	2012	\$187,500*
Sixth and University Intersection: Interconnect and coordinate pedestrian push buttons and vehicle detection devices; provide fair-share funding to eliminate two parking spaces on westbound approach on University Avenue and stripe a right-turn lane; provide two left turn lanes on northbound approach to University Avenue on Sixth Street. Work completed by City in late 1990s.	1999 Amendment, Exhibit B5	Not billed	n/a
Traffic Improvements Fund			
Contribute \$1.5 million for area-wide improvements to be chosen by and split 50/50 with City. At the end of 2011, \$470,033 remained in this fund. Projects are summarized below.	G-5B6		\$1,500,000
• Parker and Heinz Intersection: Traffic signal interconnection	n/a	2001	(\$25,000)
• Seventh and Ashby Intersection: Contribute \$750,000 to Seventh Street Improvement Project.	n/a	2004 2001	(\$550,000) (\$200,000)
• Intersection of Seventh and Parker Streets: modified traffic signal.	n/a	1997	(\$46,791)

REQUIRED IMPROVEMENT	DA REFERENCE	YEAR PAID	AMOUNT
<ul style="list-style-type: none"> • Seventh Street and Dwight Way: Widened Seventh Street between Dwight and Cutter Ways; widened Dwight Way between Seventh and Eighth Streets; constructed left-turn lane on northbound Seventh Street to westbound Dwight Way; painted new traffic striping on Dwight Way. 	n/a	1996	(\$188,176+)
<ul style="list-style-type: none"> • West Berkeley Parking Study: Requested by City with focus on parking needs in neighborhood around Eighth Street between Dwight Way and Parker Street. 	n/a	2010	(\$20,000)
TOTAL FUNDS SPENT 1992–2011			(\$1,004,967)
TOTAL FUNDS REMAINING 2011			\$470,033
Sanitary and Storm Improvements			
Engineering Analysis: Fund study to determine existing sewer conditions, capacity, and projected effects of site development	G-5C1	1992	n/a
Off-Site Improvements and Capacity Increases: Fund sewer system improvements apportioned with Bayer’s flow contributions to the system. “[Bayer] will not be required to fund more than \$100,000 toward these cumulative impacts in the first ten years of the Agreement.”	G-5C2	1999	n/a
Aquatic Park			
Contribute \$50,000 for Aquatic Park Water Quality Study	G-5D	1996	\$50,000
Habitat Restoration Project	G-5D	2000	\$20,000
Children’s Playground	G-5D	2000	\$35,000
Aquatic Park entrance at Addison Street	G-5D	2000	\$50,000
Hydrology Improvement Plan for Aquatic Park Lagoon	G-5D	2000	\$20,000
Hydrology and Restoration Project	G-5D	2001	\$125,000
Neighborhood Landscaping			
Landscape along Seventh between Parker and Cutter	G-5	1996, 1997	\$21,301+
Transportation			
Bus Shelters: Provide two at Seventh and Dwight Way	G-6D	1996	\$10,000+
Bike Routes: Fund and implement a bike route plan; contribute toward costs of signs and striping; \$10,000 additional agreed to in 2000.	G-6E	1992	\$40,000
Parker Street Bicycle Connection: Fund improvements to safety and convenience of bicyclists on Parker Street bikeway between Seventh and Ninth Streets	1999 Amendment, Appendix B6	2003	\$30,000
West Berkeley Bicycle Boulevard: Pay fair share portion of improvements along Ninth Street. Funds reallocated to removing railroad tracks on Parker Street as City paid for projects through grant funds.	1999 Amendment, Appendix B7	2003	\$30,000
TOTAL TO DATE			\$4.25 MILLION

+ Indicates amounts Bayer paid directly to construction contractors. Other costs were incurred for these projects but precise amounts are not available.

* The City invoiced Bayer for this improvement in 2011 and agreed to accept payment in two installments, the first in 2012 and the final in 2013. Final costs are expected to be in the range of \$375,000 but will be determined after the project is completed late in 2012.

Environmental Programs

Compliance with Environmental Protection Laws, Regulations, and Standards
Exhibit F, pp. F 6-7 and Exhibit G-8

Bayer complies with all applicable federal, state, and local environmental regulations.

Bayer has far surpassed the DA's general mandates to develop resource reduction and recycling plans (see Appendix H). The Berkeley facility's environmental excellence is the result of the ongoing vigilance and dedication of our on-site professional teams, working with City staff and regulators at every level of government.

Since 1990, Bayer has reduced its worldwide CO₂ footprint by more than 37 percent, mostly through improved energy efficiency. In 2007 Bayer launched a global Climate Program to reduce CO₂ emissions by 2020, with a target of 25 percent for Bayer Material Science, 15 percent for Bayer Crop Science, and 5 percent for Bayer HealthCare. Key to West Coast implementation of these global initiatives is the Berkeley site's Sustainability Council, charged with developing stringent, data-driven actions to reduce our CO₂ footprint and other environmental aspects. Berkeley's Sustainability Council is comprised of seven experts who continue to identify and prioritize new targets and initiatives each year.

2011 CO₂ Reduction Achievements

- Recycling rate was 82%, compared to 29% in 2000.
- Solid waste is down 20%—meaning a combined reduction of 25% in material going to landfill, compared to 2010
- Water use is down 14% from 2010, 42% from 2007

Surface Water Run-Off

Bayer continuously monitors the quality of surface water runoff, as required by the Storm Water General Industrial Permit issued by the State Water Resources Control Board.

Storm water conveyance systems are visually inspected on a regular basis to ensure that all discharges are authorized and that quality of authorized non-storm water discharges meet permit conditions. Monthly inspections during the wet season are conducted, along with sampling of storm water during storm events. A report of the findings for July 2010–June 2011 was submitted to the Regional Water Quality Control Board in June, 2012.

Soil and Groundwater Monitoring

All soil generated by construction activities is tested prior to disposal. The formal ground water monitoring program has been discontinued with the City's approval, as the semi-annual monitoring was not generating useful data.

Dust and Noise Suppression

Bayer continues to comply with local dust and noise suppression ordinances.

Biosafety

In conformance with Exhibit G8-C of the Development Agreement, Bayer Health-Care, LLC, hereby makes our annual confirmation that in issues of biosafety, the Berkeley site is in compliance with guidelines established by the U.S. Centers for Disease Control and Prevention and the National Institutes of Health, including the Recombinant DNA Advisory Committee, in accordance with the U.S. Food and Drug Administration requirements.

TRANSPORTATION DEMAND MANAGEMENT PROGRAM

Exhibit F, p. F-5 and Exhibit G-6

Parking and transportation have long been a concern in west Berkeley and throughout the City. Through the DA Bayer has implemented a multidisciplinary approach in which about 40% of Bayer's Berkeley employees participated in 2011.

The City and Bayer estimated that the vehicle use reduction program they agreed to in the Development Agreement would cost the company about \$55,000 per year, not including an annual adjustment for inflation. In 2011, Bayer spent nearly \$500,000 on an award-winning program that constantly strives to minimize automobile usage through education, incentives, and the provision of diverse transportation alternatives.

Bayer HealthCare Auto Use Reduction Program 2011

PROGRAM	PARTICIPATING BAYER EMPLOYEES	COST
RIDE SHARING		
Vanpools (3)	17 daily	\$31,823
Alameda County Guaranteed Ride Home Program	144 for year	n/a
Carpools (preferential on-site parking)	17*	n/a
MASS TRANSIT		
Ashby BART Shuttle	120 daily	\$93,422
Clipper Card / Commuter Checks	330 enrolled	\$324,053
Berkeley AMTRAK Taxi Service	15	\$44,595
ALTERNATIVE TRANSPORTATION		
Bicycling	25-30 per day	n/a
Telecommuting	average 35 <i>one day per week</i>	n/a
TOTAL COST 2011		\$493,893

*This figure is for registered carpoolers only, and does not include unregistered carpoolers who commute at times when finding on-site parking is not a problem and who therefore have not requested preferential parking.

Risk Management Program

CalARP and RMP

Every five years, Bayer revises the Risk Management Plan for its ammonia refrigeration facility. In 2009, this plan was revised and accepted by the City of Berkeley. There were no audits conducted in 2011.

An important component of Bayer's Risk Management Program is the community notification and warning system for an accidental ammonia release. This system, which also issues instructions for sheltering, continued to be tested at noon on the first Wednesday of each month throughout 2011.

Bayer has experienced no release from the ammonia refrigeration facility since installation.

Emergency Preparedness

As detailed in the Development Agreement, Bayer maintains a comprehensive Emergency Response Team and program on site, and also works closely with the City on annual training, program development, and sharing of resources.

In 2011, Bayer invested approximately \$95,000 for outside costs of training, equipment purchase, and maintenance to support the company's emergency response program. In addition, 2,200 hours of Emergency Response Team (ERT) employee time were devoted to training and exercises, at a cost of approximately \$150,000. A notable accomplishment in 2011 was training or retraining the entire squad, plus four other employees, on confined space rescue. Bayer had five Emergency Medical Technicians qualified under the Alameda County Authority.

In 2011, Bayer continued its strict practice of assuring the medical fitness for duty of all active ERT members. The program, administered by the company's Occupational Health Department, requires 100% participation in medical screening surveillance to assure compliance with National Fire Protection Association and HAZWOPER Guidelines. These guidelines exceed those required by public agency fire service personnel.

Bayer's ERT consists of 22 employees from all major departments and from all three shifts. ERT members are selected after passing a Bayer-approved strength and physical agility test. Throughout the year they receive extensive, specialized training in five key areas.

Emergency Response Training Activities 2011

	QUARTER
General Activities	
Incident Command Structure: 6-hour drill including “table top” and live drills to practice forming emergency Incident Command Structure.	3
Annual Equipment Maintenance and Inspection: All emergency response equipment is inspected and maintained annually, and ERT members receive refresher training on the use, care, and refilling of SCBA (Self-Contained Breathing Apparatus) units.	2
ERT Academy: Trained and qualified 5 new ERT members. Initial qualification includes: 40-hour Hazardous Waste Operations and Emergency Response, 24 hours First Aid, Incident Command Training, Site Hazard Familiarization, two days Basic Firefighting, and three days of Confined Space Rescue.	3, 4
Rescue Systems	
Rescue Systems-1: Eight ERT members took this basic rescue refresher class, which included building shoring systems to support buildings weakened by earthquakes, and use of hydraulic systems to lift heavy objects such as collapsed walls.	3
Confined Space Rescue	
Training Drill: A three-day course in confined space rescue was held, with all members, and three other employees, attending.	4
Fire Fighting	
Annual Bayer/Berkeley Fire Department Joint Emergency Exercise: On Saturday, October 22, teams of first responders from Bayer’s ERT and the Berkeley Fire Department engaged in a drilled response to a downed employee in a laboratory area contaminated with a chemical. The drill was used to help both groups understand the protocols and information sharing required in such an emergency. Bayer ERT helped with locating the simulated victim(s) and providing chemical-specific information about the primary hazard of the material. BFD and Bayer’s ERT also used the drill as an opportunity to practice chemical decontamination of victims. This drill met the annual DA requirements for a joint emergency exercise.	3
Hazardous Material Response	
Ammonia Emergency Training: A 6-hour drill simulating emergency at Bayer’s ammonia-based refrigeration facility was conducted in August, using Level-A hazmat suits with corresponding sensors and equipment and practicing physical decontamination.	3
Hazardous Materials Technician Course: All ERT members attended this 8-hour refresher course, which culminated in a full-scale, Level A drill.	1, 2
Emergency Medical Technician Training	
CPR Training: All ERT members trained on CPR/AED (Automatic External Defibrillator) use.	2
Refresher Training: ERT members engaged in skills-building in Hazardous Materials and EMT in preparation for annual joint drills with the Berkeley Fire Department as required by the Development Agreement.	2, 4
Continuing Education Training: 5 ERT team members attended refresher training on EMT/first medical responder skills. The National EMT Registry requires that ERT members complete 24 hours of refresher training every two years in order to maintain their certification.	3, 4

Community Benefits

Education—Thirty Years of Support for Berkeley Public Schools

Biotech Partners

Exhibit G-1, Biotechnology Education Training Program

The award-winning Biotech Partners program combines academics, paid work experience, and personal support for at-risk high school and community college students. An independent California not-for-profit 501(c)(3) corporation, Biotech Partners operates in collaboration with the Berkeley and Oakland Unified School Districts and the Peralta Community College District. It is governed by a 15-member industry- and community-based Board of Directors. It is housed on Bayer’s Berkeley site and receives from Bayer, free of charge, all facilities including telecommunications, utilities, and office and meeting space.

Significant Accomplishments:

- 100% high school graduation rate in the last seven years—98% since 1993.
- Over the past six years, *all* graduating Biotech Partners high school students have continued their post-secondary education, either through the Biotech Partners community college program or at other two- or four-year colleges (the national average is 54%).
- Since 1993 the overall completion rate of the community college program is 60%—more than twice the national average.
- Biotech Partners student interns have earned more than \$3 million to date.
- Employers report that Biotech Partners graduates come better prepared for their positions than graduates of four-year universities, noting that they believe this is in large measure due to the program’s pairing of both academic and on-the-job training.

A Look at Biotech Partners Graduates 1992–2011

Graduates of both High School and Community College Components

	Total	from Berkeley High
Total graduates	142	104
Graduates hired for biotech jobs	94	51
Graduates hired by Bayer	48	38

Students Enrolled at Berkeley High

ACADEMIC YEAR	FALL JUNIORS	SPRING JUNIORS	FALL SENIORS*	SPRING SENIORS*	CONTINUING TO PERALTA COMMUNITY COLLEGES
2011-12	26	24	21	21	n/a
2010-11	33	30	19	8	10
2009-10	42	42	16	16	6
2008-09	29	30	23	23	9

Total Berkeley High School Graduates 1992-2011: 1,111

*A significant number of Biotech Academy high school graduates are going on to four-year colleges rather than advancing to the Biotech Career Institute at the Peralta Community Colleges. This also explains the reduced numbers of seniors in the program, since many students need to take additional classes in their senior year to qualify for college admission.

Students in Paid Internships

High School Summer Internships

YEAR	TOTAL	AT BAYER*
2011	22	11
2010	29	11
2009	30	11
2008	24	11
Total 1992-2011	735	298

Community College Year-Long Co-Op Jobs

2011	14	10
2010	8	6
2009	9	8
2008	8	7
Total 1992-2010	271	145

*In addition to Bayer, summer internships were also provided in 2011 by Kaiser Permanente Medical Center Oakland, Libby Laboratories, Inc., the Joint BioEnergy Institute, Berkeley Dog & Cat Hospital, the Lawrence Berkeley National Laboratory, the USDA, Microbiology & Quality Associates, and two UC Berkeley labs. Two Co-Op internships are being provided by Novartis Vaccines & Diagnostics, and one by Children's Hospital Oakland Research Institute.

In 2011, 86% of the high school students who completed their summer internships continued the program in their senior year. Those who did not were university bound, with academic and extracurricular requirements that conflicted with the Biotech Academy schedule.

Support for Berkeley Public Schools

Berkeley Public Education Foundation

Science Curriculum Development for Grades K–8

In 2011 the Foundation used Bayer funds for a series of curriculum-related field trips for students at Berkeley’s 11 elementary and three middle schools. Another focus was science-themed non-fiction books, which are being used to improve both science and literacy skills as part of a district-wide program developed by Columbia University. Finally, grants were used to build math proficiency for middle-school students as a foundation of science literacy. Bayer is proud to support this focus on building a strong, multifaceted science curriculum.

Sponsorship of Local Science Fairs

The Berkeley Public Education Foundation continues to hold in reserve funds paid by Bayer through 2007 for middle school science fairs, which were curtailed by the Berkeley Unified School District several years ago.

Employment/Hiring

Bayer remains in compliance with the objectives outlined in the Development Agreement.

In 2011, Bayer announced that it would be winding down its Emeryville site, which manufactures a multiple sclerosis drug, by the end of 2013. The announcement was scheduled in order to give Emeryville employees as much lead time as possible to find new employment, and also to allow Bayer time to assist, through means including exploring the transfer to Berkeley for as many employees as possible. By late 2011, layoffs had not begun at the Emeryville site, but 31 Emeryville employees were able to transfer to similar positions at the Berkeley site. Relocation and retraining efforts are continuing in 2012.

2011 New Hires and Transfers

New employees	28
Emeryville transfers	31
Technical workers (biotechnicians, biological and chemical analysts, etc.)	17
Non-technical workers	42
ILWU Local 6 members	5
Berkeley residents	2
Total jobs added to Berkeley site 2011	59

Since 1992, Bayer has hired a total of 324 Berkeley residents, including 48 Biotech Partners graduates.

Training of ILWU Local 6 Janitors by Biotech Partners

Bayer's labor contract with Local 6 of the International Longshore and Warehouse Union, renewed in 2011 for a four-year term, included a provision that Biotech Partners present a summary to union members of its educational programs. Biotech Partners responded that programs to train adults for careers in biotechnology had not been included in their original mission, despite a stated requirement in the DA. To meet the terms of the current labor contract, Bayer is working with workforce development experts at California State University, East Bay, and others to develop the informational presentation that meets the needs of interested janitorial employees.

2011 City of Berkeley Labor Commission Study on Bayer Hiring Practices

In late 2010, the City's Labor Commission requested a study on Bayer's hiring practices, particularly hiring of Berkeley residents, in light of requirements laid out in the DA. The final report, prepared by graduate students in the City Planning Department at UC Berkeley, was presented to the City Council in November, 2011. Since this meeting, Bayer has met with the City and local workforce development agencies to explore ways to strengthen referrals of local residents.

Affordable Housing

Over the first ten years of the Development Agreement, Bayer paid a total of \$884,140 to the City's Housing Trust Fund. No further payments were required after 2002.

Childcare

Sick Child Care Program

Through the DA, Bayer has subsidized this local provider of day care for sick children of qualified low-income Berkeley residents. This subsidy provided care for an average of two children per day through 2010, and represented about 25 percent of the program's total annual budget.

Bayer made payment of \$16,100 to the Sick Child Care Program in January, 2011. In February, Bayer received notice that the organization had ceased operations. Attempts to obtain a financial report from either former staff or board members have gone unanswered. A former employee has contacted Bayer repeatedly about obtaining payments for back wages. We have contacted the City but so far have made no progress in obtaining an accounting of how the 2011 payment was used. To our knowledge no sick child care services were provided in 2011.

With the demise of the Sick Child Care Program, Bayer worked with the City to find a replacement service. BANANAS submitted a proposal which Bayer accepted; beginning in 2012 this payment is being added to other mitigation payments made to BANANAS, as described below. We wish to especially thank Arlyce Currie, who as Executive Director of BANANAS was so quick and wise in finding a way to smoothly continue this important service to Berkeley families.

BANANAS—Infant and Child Care

In 2011 BANANAS used earnings and carry-over funds from prior Bayer payments to provide child care subsidies of \$400 per month to 18 eligible low-income families:

2011 Child Care Subsidy Recipients—Family Profile

Parents	
Single	12
Married	6
West Berkeley Residents	8
Bayer Employees	0
Children	
Infant	6
Pre-School and School Age	12
Providers	
Family Day Care	8
Child Care Center	5
Family Member (or otherwise exempt from licensing)	5

BANANAS: Health Care and Safety Training for Child Care Providers

Healthcare training for childcare providers focused this year on dental health, motivated by the fact that California children have nearly twice the untreated tooth decay as children in other states. More than 30 Berkeley child care providers attended a workshop presented by nursing staff of UCSF’s Childcare Health Program. After the workshop, BANANAS sent every child care program in Berkeley an age-appropriate dental hygiene book complete with children’s toothbrushes that light up after children have brushed the recommended two minutes.

Twenty-one 15-hour Child Care Health and Safety trainings were conducted this year in English, and an additional 17 in Asian languages and Spanish, with scholarships of up to \$100 per person provided by Bayer funds.

Fourteen teenaged babysitters attended a class in CPR and first aid.

Extensive outreach was also provided through Bayer funds.

Historic Preservation and Public Art

A Century of Innovation and Caring: The History of Bayer and Cutter Laboratories in Berkeley, a narrated DVD, was completed in the fall of 2007 and distributed with the 2007 Annual Report to the City.

Community Support Programs: West Berkeley Foundation

The West Berkeley Foundation, established through the Development Agreement with a total of \$1,186,620 coming from Bayer from 1993 to 2002, continues in operation today, and has played an important role in the community since its inception in 1992. No grants were made in 2011.

Animal Care and Usage

In 2008 Bayer moved all animals off the Berkeley campus. Nonetheless, Bayer continues to comply with the DA in relevant areas.

Peace and Justice

Bayer is proud of its diverse workforce, its environmental practices, and its leading role in corporate social responsibility.

Statement Subscribing to Policy of Equal Employment Opportunity

Bayer HealthCare fully subscribes to a policy of Equal Employment Opportunity and reaffirms its commitment to maintain and conduct its employment activities in a manner that is in accordance with that policy and with the Berkeley Human Rights Ordinance, the United Nations Charter, and the U.S. and California Constitutions. This policy applies to recruiting, hiring, promotions, upgrading, layoffs, compensation, benefits, termination and all other privileges, terms, and conditions of employment. Bayer's policy prohibits harassment of one employee by another, including sexual harassment, which can include unwelcome sexual advances, request for sexual favors, and other forms of conditioning employment benefits upon submission to sexual advances. Bayer pledges itself to a program of affirmative action aimed at assuring true equality of employment and a work environment without discrimination.

Exhibit H

Monitoring and Reporting Program

Exhibit H provides a summary of all projected effects of Bayer's proposed site development plans, along with mitigations and reporting requirements agreed to in the 1992 Development Agreement. This chart has been updated to include effects and mitigations of the 1999 Amendment as well, which appeared as Exhibit B.

Citations (e.g., 5B-14) refer to page numbers in the Draft Environmental Impact Report dated June, 1991. Page numbers referenced in the Seismic Safety Section (e.g., 4.3-20) are from the Final Environmental Impact Report dated October, 1991. Both documents are filed with the State of California, State Clearing House Number 900330029.

Bayer is in compliance with all mitigation mandates unless otherwise noted.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
LAND USE AND RECREATION		
H-1/Item 1	Floor area: The combined size of the existing buildings and new construction would increase the building space presently on the site by 55%. This could be a significant impact depending on how the buildings are sited and designed. 5B-14 ¹	Bayer will site and design buildings to reduce impacts of increased building space in accordance with the Site Development Plan. Additionally, Bayer will attempt to acquire additional land to provide more land area.
H-1/Item 2	Height: Buildings constructed during Phase I would have a maximum building height of 80 feet, increasing building intensity in an area of primarily low-rise buildings. This would be a significant impact of the Project. 5B-19	Bayer will locate tall structures in clusters some distance from property edges in accordance with the Site Development Plan. However, this will not reduce impacts to a level of insignificance. A statement of overriding consideration must be provided.
H-1/Item 3	Height: The Pilot Plant (now Building 60) would have a height of 68–80 feet, exceeding the height of most of the low-rise buildings in the area. The building would be set back 33 feet from Dwight Way. 5B	The Pilot Plant will not exceed 65 feet. Additionally, the building will have special architectural features along Dwight Way in accordance with the Site Development Plan. However, this will not reduce impacts to a level of insignificance. A statement of overriding consideration must be prepared.
H-1, Item 1	Floor Area: Total new floor area added in Phase II will more than double the amount of developed space that is presently on the site. 5B-20	Bayer will site and design buildings to reduce impacts of increased building space in accordance with the Site Development Plan. Additionally, Bayer will attempt to acquire additional land to provide more land area.
H-1, Item 2	Height: The project would have a maximum building height of 100 feet. This would be substantially higher than most of the buildings in the area. 5B-21	Bayer will not construct buildings higher than 80 feet in height. Special architectural features as defined in the Site Development Plan will further reduce the impact of these heights.
PHASE III: OVERALL IMPACTS		
H-2, Item 1	Floor Area: The Project as a whole would substantially increase the amount of building floor area on the site. 5B-22	Bayer will site and design buildings to reduce impacts of increased building space in accordance with the Site Development Plan. Additionally, Bayer will attempt to acquire additional land to provide more land area.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
CUMULATIVE LAND USE IMPACTS		
H-2/Item 1	Cumulative Development: From a land-use perspective, the project would not cause a significant impact. However, the intensity of the proposed use as indicated by height and floor area ratio (FAR) would be a significant contribution to cumulative development impacts. 5B-23	Bayer will site and design buildings to reduce intensity from height and FAR in accordance with the Site Development Plan. However, this will not reduce impacts to a level of insignificance. A statement of overriding consideration must be prepared.
RECREATION IMPACTS		
H-2/Item 1	With the anticipated increase in employees, the Project could result in increased use of Aquatic Park and increased need for park maintenance. 5B-23-24	Bayer will contribute to park improvements.
H-2/Item 2	It would be hazardous for employees from the site to walk across the railroad tracks to reach the park. 5B	Bayer will ensure current site safety guidelines address railroad crossing safety. Bayer and the City will continue to examine the feasibility of a pedestrian crossing at the terminus of Dwight Way.
VISUAL QUALITY		
H-3/Item 1	Appearance from East Side of Aquatic Park: Construction proposed for Phase I would place up to three large buildings on two blocks along the waterfront side of the site. Assuming heights of 80 feet, the buildings would be visible from the pedestrian path on the east side of the park. 5	As proposed in the Site Development Plan, Bayer will incorporate special architectural measures along the western boundary which include open spaces between buildings, windrows and stepbacks.
H-3/Item 2	View from Aquatic Park Picnic Areas: Although partially screened by trees, the Pilot Plant would be visible, appearing as a boxy industrial building as seen from the park's picnic areas. 5C-8	Bayer will shape building silhouettes by stepping back upper floors along building edges in accordance with the Site Development Plan.
H-3/Item 3	Appearance from West Side of Aquatic Park: The Fill and Finish Building and the Pilot Plant proposed for the western property line would be visible from the west side of Aquatic Park. 5C-10	As proposed in the Site Development Plan, Bayer will incorporate special architectural measures along the western boundary which include open spaces between buildings, windrows and stepbacks.
H-3/Item 4	Glare: If glass were used on the western facades of the production buildings, there is the potential for annoying glare. 5C-14	Bayer will not use highly reflective glass in the construction of buildings in accordance with the Design Guidelines.
H-3/Item 5	Appearance from Dwight Way near Fourth Street: The proposed 80 foot Pilot Plant would dominate the streetscape, detracting from the visual quality of the environment. 5C-14	The Pilot Plant will not exceed 65 feet in height. As proposed in the Site Development Plan, Bayer will incorporate special architectural measures into the design of the building, which include articulations and modulations.
H-3/Item 6	Mid-range Views (Ground Level): Phase I buildings would not be prominent from the ground at mid-range locations around the site because of flat topography and intervening buildings, but the pipe bridge—as much as 30 feet in height—would obstruct the view corridor down Parker Street. 5C-16.	As proposed in the Design Guidelines, windrows proposed for the western property edge will obscure a significant portion of the pipe bridge.
H-3/Item 7	Mid-range Upper Story Views: From the upper floors of the Fantasy Record building and others, the proposed 80-foot-tall production building blocks would obstruct views of the Bay. 5C-16	Bayer will cluster tall buildings and stepback the structures from public view corridors in accordance with the Site Plan, Site Standards and Design Guidelines.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
H-3/Item 8	Distant View: As seen from the Berkeley hills near Dwight and Panoramic Way, the Pilot Plant, Production Building B4.5 and the Fill and Finish Building on block A5 would be visible, interrupting views of the water. These tall buildings along the waterfront would contribute to the cumulative reduction in waterfront views already occurring in Berkeley and Emeryville. 5C-19	The Pilot Plant height has been reduced to 65 feet. Additionally, Bayer will cluster tall buildings and stepback the structures from public view corridors in accordance with the Site Development Plan Guidelines.
H-4/Item 1	Appearance from East Side of Aquatic Park: In Phase II, the production building on block A4, with maximum height of 80 feet, would substantially change the backdrop to Aquatic Park. 5C-19	As proposed in the Site Development Plan, Bayer will incorporate special architectural measures along the western boundary which include open spaces between buildings, windrows, and stepbacks.
H-4/Item 2	Appearance from West Side of Aquatic Park: New buildings completed in Phase II would decisively change the appearance of this area from a green space to an urbanized section of Berkeley and would partially obstruct distant views of the Berkeley Hills. 5C-22	As proposed in the Site Development Plan, Bayer will incorporate special architectural measures along the western boundary which include open spaces between buildings, windrows, and stepbacks.
H-4/Item 3	Glare: If glass were used on the western facades of the production building, the glare would be hazardous to motorists on I-80 and annoying to park users. 5C-22	Bayer will not use highly reflective glass in the construction of buildings in accordance with the Design Guidelines.
H-4/Item 4	View from Dwight Way and Fourth Street looking South: Only production block A4 would be a prominent feature from this viewpoint. 5C-22	As proposed in the Site Plan, Site Standards and Design Guidelines, Bayer will incorporate special architectural measures into the design of the building which include articulations and modulations.
H-5/Item 2	Distant Views: Three buildings as much as 80–100 feet tall would be added to the skyline in addition to the three Phase I buildings that would be 68–80 feet tall, adding to cumulative viewshed impacts along the waterfront. 5C-34	As proposed in the Site Development Plan, Bayer will preserve the view corridors along Dwight Way and Carleton by providing stepbacks and setbacks. Additionally, Miles will create a view corridor on Parker.

PHASE III ENVIRONMENTAL IMPACTS

H-6/Item 2	Entrance to the Site: Plans include no architectural treatment to announce the Project's entrance, establishing its identity and relationship to the community. 5C-51	As proposed in the Site Development Plan, Bayer will create a prominent Main Entrance with special architectural measures to establish its identity and relationship to the community.
H-6/Item 3	Articulation: Since the Project has not been designed architecturally, there is the potential for boxy buildings with unarticulated facades that turn their backs on surrounding streets while showing no human activity. 5C-51	Bayer will architecturally design buildings in accordance with the Site Development Plan. The Design Guidelines provide for articulated facades.
H-6/Item 4	View Corridors: The pipe bridge has the potential to directly impair the view corridors around the site. Other buildings, if not set back from the street and stepped back in height, could indirectly obstruct the view corridors. 5C-52	As proposed in the Site Development Plan, Bayer will preserve the view corridors along Dwight Way and Carleton by providing stepbacks and setbacks. Additionally, Bayer will create a view corridor on Parker.

HISTORIC RESOURCES

H-7/Item 1	Building 12: The proposed project would involve the demolition of B12, originally part of the Byron Jackson Iron Works, designated by the Berkeley Landmarks Preservation Commission as a Structure of Merit. 5D-7	Bayer will attempt to reuse and/or recreate architectural elements or features from Building 12.
H-7/Item 2	Cumulative Impact: Although demolition of Building 12 would not set a precedent, it would contribute to a trend in demolishing buildings that reflect Berkeley's past. 5D-8	Bayer will assemble an historical exhibit that will be displayed in one or more public buildings on the Bayer site.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
TRANSPORTATION AND TRAFFIC		
H-7/Item 1	The intersection of Seventh and Dwight Level of Service (LOS E) would experience a 2% increase in traffic. Traffic impacts at this intersection would be significant. 5E-25	Bayer will fund the modification of the signal at the intersection of Dwight and Seventh and create a Sixth Street/Dwight Way route for southbound/eastbound "Left Turn" onto eastbound Dwight Way.
H-7/Item 2	At two unsignalized intersections, Potter/Seventh St. and Heinz/Seventh St., traffic would increase 1-2%. Existing conditions at both are already very poor. 5E-25	City will signalize the intersection of Heinz and Seventh Street.
H-7/Item 3	Phase 1: Traffic at the Parker/Seventh St. intersection, which already meets Caltrans warrants for signalization, would increase by more than 3% in Phase 1. 5E-26	City will signalize the intersection of Parker and Seventh Street.
H-7/Item 4	Phase II: Traffic at the Parker/Seventh St. intersection would decrease under Phase II conditions due to reorientation of the project entrance from Parker to Cutter Way. The intersection of Cutter Way and Seventh would then meet Caltrans signal warrants.	Bayer will locate the garage entrances on Seventh and Eighth Streets in accordance with guidance from the City Traffic Engineer.
H-8/Item 5	Truck and Loading Impacts: Bayer's current and anticipated truck and loading impacts are small. Changes to the anticipated truck and loading operations could have a significant impact 5E-27	Bayer will continue to maintain truck and loading operations off public roads.
H-8/Item 6	Additional Parking Space Requirements: Without provision for additional parking spaces, an estimated 200 construction workers would compete with local residents for on-street parking. 5E-29	Bayer will provide off-street parking for all project phases.
H-8/Item 7	Pedestrian Impact: Bayer employees would be parking in a garage at Seventh and Dwight and crossing Seventh Street to get to work. Although the site plan calls for a pedestrian bridge at the third level of the garage, most employees would cross at street level. Special traffic controls would be needed. 5E30	Bayer will locate some parking on the western side of Seventh Street to reduce pedestrian traffic. The traffic signal at Seventh/Dwight will be modified to allow pedestrian crossings.
H-8/Item 8	Air Quality: Vehicle trips generated by the project would contribute to air pollution. 5E-30	Bayer will implement a Trip Reduction Program to increase average vehicle riders (AVR) and reduce vehicular miles.

CUMULATIVE TRAFFIC IMPACTS

H-8/Item 1	While the traffic and air quality impacts of each development project taken individually are small, the cumulative impact would be significant. 5E-31	Bayer will implement a Trip Reduction Program to increase AVR and reduce vehicular miles.
H-8/Item 2	Truck Traffic during Construction: Much truck traffic would occur during construction and could have significant impact. 5E-35	Bayer will restrict truck traffic to established routes.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
AIR QUALITY		
H-8/tem 1	Asbestos: Demolition of 34 buildings—11 in each of Phases I and II, 13 in Phase III—could cause asbestos to be released into the atmosphere, potentially endangering workers. 5F-6	Bayer will comply with Federal regulations governing asbestos removal.
H-8/tem 2	Building Contamination: When buildings 46 and 46A, used to manufacture plague vaccine, are demolished in Phase I, any vestige of plague not eradicated could cause health impact to those in the immediate vicinity on-site. 5F-6	Prior to demolition, Bayer will decontaminate buildings 46 and 46A in accordance with Federal, State and local regulations and standards.
H-9/tem 3	Fumigation: Fumigation of contaminated buildings could cause air quality impacts, depending upon the chemicals used. The use of formaldehyde in fumigating the plague building could have significant impacts. 5F-6	Bayer will conduct fumigation operations in accordance with Federal and State health and safety regulations.
H-9/tem 4	Construction Dust: Construction on each block would emit approximately 1 ton of dust per month for one to two months. If dust suppression measures were not carried out, this would be a significant impact. 5F-7	Bayer will carry out dust suppression measures per Construction/Demolition Dust Suppression Program.
H-9/tem 5	Construction Vehicles: Construction vehicles/equipment emitting exhaust at construction sites have the potential of significant air quality impact. 5F-8	Bayer will comply with existing City ordinances and constraints imposed by use permits to reduce exhausts emitted from construction vehicles/equipment.
H-9/tem 6	Overall Phase I Impacts: Construction would occur in four blocks over a period of five years. During those years, there would be 4–8 months in which approximately 1 ton of dust per month would be stirred up. 5F-8	Bayer will carry out dust suppression measures per Construction/Demolition Dust Suppression Program.
H-9/tem 7	Pilot Plant: There would be a period of one to two months during which approximately one ton of dust per month would be emitted. 5F-8	Bayer will carry out dust suppression measures per Construction/Demolition Dust Suppression Program.
H-9/tem 8	Phase II: During Phase II, over five years, there would be six to twelve months during which approximately one ton of dust per month would be emitted. 5F-9	Bayer will carry out dust suppression measures per Construction/Demolition Dust Suppression Program.

OPERATIONAL IMPACTS

H-9/Item 1	Nitrogen Oxide: Natural gas consumption would double by the end of Phase II and increase to 3,400,000 therms per year by the end of Phase III, assuming natural gas is used to fuel boilers. Without measures to control emissions, this would be a significant impact. 5F-9	Bayer will comply with Federal regulations governing nitrogen oxide emissions from natural gas fueled boilers.
H-10/Item 2	Fuel Oil Combustion: Fuel oil will be used only in the event of natural gas curtailment. A five-day supply would be stored which, if burned, would result in emissions which would be a significant impact. 5F-10	Bayer will comply with Federal regulations governing emissions from fuel oil used to operate boilers.

OPERATIONAL IMPACT—TRAFFIC AIR QUALITY

H-10/Item 1	Cumulative development would increase vehicular emission of reactive organic compounds (ROG) by approximately 0.12 tons/day (240 pounds) and emissions of NO ₂ by about 0.42 tons/day (838 pounds). This would be a significant impact. 4.4-3	Bayer will implement a Trip Reduction Program to increase AVR and thus reduce vehicle emissions by Bayer employees. Additionally, employment of Berkeley residents and an overall low employee head count per floor area reduce impacts of vehicular emissions. However, this will not reduce impacts to a level of insignificance. A statement of overriding consideration must be prepared.
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DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
NOISE		
H-10/Item 1	Operational Noise: Compressors, boilers and cooling-tower fans in utility buildings could increase noise levels on the Project site, possibly significantly in Aquatic Park and along Dwight Way. 5G-3	Bayer will comply with City of Berkeley Noise Ordinances and, if required, carry out noise suppression measures per the Noise Suppression Program.
H-10/Item 2	Nighttime Traffic Noise: By Phase III, swing shift would have 250 workers and graveyard 80, compared to the present 50 and 10, respectively. The increase in nighttime employees, along with the relocation of parking to a parking garage, would increase nighttime noise, especially to residents near the garage.	Same as above.
H-10/Item 3	Overall Construction Noise: Without noise control, construction and demolition noise would range from 78-91 dBA, intermittently, over the 30-year construction period, which could cause significant impacts. 5G-5	Same as above.

PHASE 1: CONSTRUCTION IMPACTS

H-10/Item 1	North of the Site: In Phase I, construction of the two Pilot Plants* on the NW corner of the site would generate noise exceeding the Berkeley Community Noise Standards which would be heard in offices along Dwight Way between the Southern Pacific tracks and Fifth St. 5G-6	Same as above.
H-11/Item 2	West of the Site—Demolition: Demolition of buildings 2, 3, 4, 6, 7, 12, 14, and 16 would exceed background noise heard in picnic areas of Aquatic Park by 3 dBA or more for one to two months. 5G-7	Same as above.
H-11/Item 3	West of the Site—Construction: Construction of the Pilot Plant buildings on the NW corner and the production building on the SW corner of the site would generate noise which would be heard in Aquatic Park for two to three months for each block, with peak construction noise exceeding background noise levels by 3 dBA or more. 5G-7-8	Same as above.

PILOT PLANT

H-11/Item 1	North of the Site: In Phase I, construction of the Pilot Plant on the NW corner of the site would generate noise exceeding the Berkeley Community Noise Standards which would be heard in offices along Dwight Way between the Southern Pacific tracks and Fifth St. 5G-7	Same as above.
H-11/Item 2	West of the Site—Construction: Construction of the Pilot Plant on the NW corner of the site would generate noise heard along the Aquatic Park for two to three months, with peak construction noise exceeding background noise levels by 3 dBA or more. 5G-7-8	Same as above.

PHASE II: CONSTRUCTION IMPACTS

H-12/Item 1	West of the Site—Construction: The impacts of construction on noise levels in Aquatic park would be similar to the impacts described for Phase I. 5G-9	Same as above.
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DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
BIO SAFETY		
H-12/Item 1	Accidental Exposure to EBV: Spills involving EBV are possible, such as spills of EBV-infected cell cultures in incubators or possibly the overturning of fermenters in a catastrophe such as a severe earthquake. Should such an event occur, there could be health impact to emergency responders. 5H-16	Bayer will implement an Emergency Preparedness Program.
H-13/Item 2	On-Site Exposure to Plague Bacilli: Plague vaccine production would continue until 1992–93 under National Institutes of Health (NIH) Biosafety Level 3 (BL3) containment requirements. Under normal operating conditions, in-place mitigation measures would be adequate. In the event of a catastrophe resulting in a release of bacilli, on-site workers, who are and would be vaccinated, would not be at risk, but emergency responders entering the site might be exposed to the organism. 5H-38	Plague bacilli no longer present on site.
H-13/Item 3	Off-site Exposure to Plague Bacilli due to Accidental Release: Catastrophic events such as earthquakes of magnitude 6.5 or higher could result in a failure in the integrity of the plague building containment system and cause the release of the plague bacilli. In aerosol form (as particles of dust), the bacilli could be inhaled and cause pneumonic plague. Emergency responders and off-site populations could be exposed in this way if plague organisms were released as a result of catastrophic events. 5H-39	Plague bacilli no longer present on site.
H-13/Item 3	Exposure to Class 1 and 2 Microorganisms during Research and Development Activities and during Quality Assurance Activities: Class 1 organisms are not known to cause disease in healthy adult humans, so accidental exposure would not impact laboratory handlers. Class 2 viruses, such as measles and polio, which are used in virus-inactivation studies, are handled using safety equipment and procedures that minimize risk of exposure. However, if all precautions fail, in the event of catastrophe, individuals both on and off-site could be exposed to diseases, some of which have no known antidotes. 5H-40 and (cont.) 5H-19	Bayer will implement an Emergency Preparedness Program. Submitted 8/92.
H-14/Item 4	Release of Infections Materials Due to Future Demolition: As operations using infectious materials such as plague, EBV, polio, and hepatitis are discontinued, Bayer plans to demolish the buildings housing these uses after first decontaminating the buildings. It is unlikely that building disinfection would leave residual organisms posing a biohazard. 5H-51	Bayer will furnish verification that these buildings have been disinfected in accordance with applicable regulations, at the time of demolition
CHEMICAL HAZARDS		
H-14/Item 1	Chemical Inventory Reporting: Materials stored in the laboratories would continue to be in small quantities and small containers. However, the City requires more information for emergency-response planning than is given in the current reporting forms for inventories. 5I-25	Bayer will provide a detailed inventory of all chemicals on site.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
H-14/Item 2	Laboratory Chemical or Radionuclide Release during Delivery: If an upset resulting in a chemical release occurred during delivery at the warehouse or distribution to the laboratory buildings, there would be a potential hazard to workers and/or emergency responders in the immediate vicinity. 5I-25	Bayer will implement an Emergency Preparedness Program.
H-14/Item 3	Upset in the Laboratory: A release of chemicals or radionuclides in the laboratory during storage or use would have no impact on the public or the environment but would have a potential impact on workers and emergency responders. 5I-26	Same as above.
H-14/Item 4	Upset During Preparation of Lab Packs for Disposal: If an accident resulted in release during handling of hazardous chemical waste, the impact to workers and emergency responders would be potentially significant. 5I-27	Same as above.
H-15/Item 5	Upset During Preparation of Radioactive Waste for Disposal: In a situation causing an upset in the radioactive waste storage area, a release of radioactive waste materials might occur with potentially significant impact to workers and emergency responders. 5I-27	Same as above.
PRODUCTION OPERATIONS		
H-15/Item 1	Delivery and Storage of Caustic: Should a release of caustic occur during unloading or storage, containment and neutralization procedures are in place. However, the possibility of skin contact with this material exists, with hazard to workers and emergency responders. 5I-28	Bayer will prepare a Hazard Operability Study.
H-15/Item 2	Delivery and Storage of Compressed or Liquefied Gas: These gases are not toxic, but a release from compressed or liquefied gas containers would impact workers and emergency responders by exposing them to freezing temperatures from the liquefied gas or physical harm from the compressed (pressurized) gases. 5I-29	Bayer will continue to train employees in the safe handling of compressed and liquefied gasses. Additionally, Bayer will implement an on-site training program for City emergency responders.
H-15/Item 3	Acid Storage and Delivery: A potentially significant impact to workers and emergency responders would be present in the event of skin contact with phosphoric acid released in an accident. 5I-29	Bayer will prepare a Hazard Operability Study.
H-15/Item 4	Accidental Mixing of Acid and Caustic: Mixing large quantities of acid and caustic either by accidental hook-up to the wrong fitting during delivery or by simultaneous piping failures could result in an explosion and produce an acid or caustic mist impacting workers, emergency responders, and the public by inhalation and skin contact. 5I-30	Bayer will prepare a Hazard Operability Study and an Off-site Consequence Analysis.
H-15/Item 5	Temporary Tanks: When properly designed and maintained, the temporary tanks would not pose a significant safety risk during storage. 5I-30	Bayer will properly design and maintain temporary tanks.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
H-15/Item 6	Fuel Delivery: Although emergency fuel would be delivered infrequently, a risk of release during delivery would exist with potentially significant impact on workers and emergency responders. 5I-30	Bayer will prepare a Hazard Operability Study.
H-16/Item 7	Fuel Delivery Route: The route traveled by bulk tanker trucks delivering fuel might cross residential areas, with potentially significant impact. 5I-31	Bayer will inform suppliers of bulk hazardous materials that carriers must use truck routes approved by the City.

PHASES II AND III: LABORATORY OPERATIONS

H-16/Item 1	Increase in Laboratory Area: During Phase III, laboratory area would increase by 7% and chemical usage would presumably increase by a similar percent—with no additional significant impact. 5I-32	Bayer will implement an Emergency Preparedness Program.
H-16/Item 2	Increase in Production Area: Occupied area would increase during Phases II and III to four and one-half times the present level, and the quantity of chemicals in use would increase proportionately. 5I-32	Same as above.
H-16/Item 3	Use of Ammonia: In lieu of increased use of CFC's, a new refrigeration system using ammonia is proposed. While CFC's pose a cumulative risk to the environment through destruction of the ozone layer, in the event of a release, ammonia would pose a greater acute hazard to workers, emergency responders, and the public, and would also pose a hazard to the environment. 5I-33	Bayer will obtain a certified Risk Management Prevention Program for the Ammonia Refrigeration System.
H-16/Item 4	Release of Ammonia: A risk of releasing ammonia during delivery and operation would exist. Workers and emergency responders could be exposed to hazardous conditions, and the environment and the public could be exposed to a cloud of ammonia vapor. 5I-34	Same as above.

SOCIOECONOMICS

ENVIRONMENTAL IMPACTS—EMPLOYMENT

H-17/Item 1	Job Training: Of the 380 jobs created over the 30-year project period, an estimated 58% would require some college education and another 17% require completion of high school. Even with continuation of the First Source Employment agreement between the City and Bayer/Cutter, many applicants referred by the City would not be qualified for the new positions. 5J-4	Bayer will design and implement a Biotech Academy at Berkeley High School and a Biotech Career Institute at a local community college.
H-17/Item 2	Construction Jobs: The approximately 200 temporary construction jobs would not necessarily be filled by Berkeley residents. 5J-4	Bayer has agreed that all recruitment for new and replacement construction employees will first be sought via the Construction section of the City's First Source Employment Program, in accordance with union policy and procedures. Bayer will establish a goal of hiring one (1) out of every five (5) workers in the total construction work force from First Source throughout the life of the Development Agreement. First Source was discontinued in 2009 due to City budget constraints.
H-17/Item 3	Construction Job Training: To fill the temporary construction jobs, some Berkeley residents would need training. 5J-4 & 5J-5	Bayer will make a contribution to the First Source Construction Employment Program fund to assist new construction workers with job start-up expenses.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
ENVIRONMENTAL IMPACTS—HOUSING		
H-17/Item 1	Of the total new housing demand, an estimated 21 households would need affordable housing. 5J-7	Bayer will provide funds to the City's Housing Trust Fund for 21 units of low- and very-low income housing.
H-17/Item 2	Pilot Plant: Five affordable housing units will be needed by the end of Phase I, including one unit of low-income and one unit of very low income housing needed by new employees of the Pilot Plant. 5J-8	Same as above.
CUMULATIVE IMPACTS		
H-18/Item 1	Total housing demand and affordable housing needs will be further increased by 25 other projects for expanded and new businesses in West Berkeley. 5J-8	Bayer will mitigate its share of the cumulative impacts by performing the three mitigations listed above.
ENVIRONMENTAL IMPACTS—CHILD CARE		
H-18/Item 1	The approximately 380 new employees added over a 30-year period would create an estimated demand for 40 new child care slots, 13 of which would need to be subsidized. 5J-10	Bayer will provide funds into a Capital Fund for the conversion of 40 preschool slots to infant care slots. Additionally, Bayer will provide funds into an Operating Fund for 14 affordable child care slots to assist low-income households.
H-18/Item 2	Phase I Overall: The Project would create a need for 11 child care slots in Phase I. 5J-11	Same as above.
H-18/Item 3	Pilot Plant: The Pilot Plant would create a need for child care for four children. 5J-12	Same as above.
H-18/Item 4	Phase II: The project would create a need for child care for nine children in Phase II. 5J-12	Same as above.
H-18/Item 5	Phase III: The project would create a need for child care for 20 children in this Phase. 5J-13	Same as above.
CUMULATIVE IMPACTS		
H-18/Item 1	The approximately 25 new projects proposed or approved for West Berkeley would create the need for additional child care. 5J-13	Bayer will mitigate its share of the cumulative impacts by performing the five mitigations listed above.
PUBLIC SERVICES AND FACILITIES		
ENVIRONMENTAL IMPACTS—SECURITY		
H-19/Item 1	Police: The Berkeley Police Department does not anticipate more employees, equipment or costs due to the proposed project provided that Bayer/Cutter takes proper security precautions recommended by the Department. 5K-1	Bayer will take proper security precautions recommended by the City Police Department
ENVIRONMENTAL IMPACTS—EMERGENCY SERVICES		
H-19/Item 1	The Berkeley Fire Department has stated that, if the Project complies with all applicable provisions of the Fire Code, they would not need additional manpower or equipment as a result of the Project. 5K-2	Bayer will comply with all applicable provisions of the Fire Code.
H-19/Item 2	Fire flow requirements must be determined by the Project sponsor and both hydrants and adequate water supply provided if necessary. 5K-3	Bayer will determine fire flow requirements and provide adequate hydrants and water supplies. Bayer will at all times maintain on-site fire suppression capabilities, as a supplement or back-up to the City system.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
H-19/Item 3	Pilot Plant: The Project sponsor must determine fire flow requirements and provide needed hydrants and water supply. 5K-4	Same as above.
H-19/Item 4	Above-Ground Tanks: Installation of the tanks would not result in an increased need for Fire Department manpower or equipment if the tanks comply with all applicable fire and safety regulations. 5K-4	Bayer will install above ground tanks in accordance with all applicable fire and safety regulations.

ENVIRONMENTAL IMPACTS—WATER

H-19/Item 1	Phase I Overall: With the proposed project, water consumption at the site is expected to increase by 10% or 10,000 gallons per day over existing levels. 5K-7	Bayer will prepare and implement a water conservation program in conjunction with East Bay Municipal Utility District (EBMUD), including evaluation of the Project's demand on the public water delivery system.
H-20/Item 1	Pilot Plant: When the proposed Pilot Plant begins operation, it would increase water consumption at the site by a maximum of 10% or 10,000 gallons per day. Actual water consumption is expected to be less than this because other water-using operations will be phased out. 5K-10	Bayer will submit a preliminary feasibility study for water reclamation.
H-20/Item 2	Pilot Plant: Water requirements for the Pilot Plant including fire flow could the capacity of existing feeder lines. 5K-11	Bayer will upgrade water delivery lines as needed to preserve adequate fire flow.
H-20/Item 3	Phase II: Bayer's water demand will increase by about 0.05 million gallons per day (MGD) in Phase II. 5K-11	Bayer will submit feasibility study for water reclamation system and will implement measures that are feasible over the term of the Development Agreement.
H-20/Item 4	Phase III: Water demand will further increase by about 0.2 MGD between 1990 and 2020. 5K-11	Bayer will upgrade water delivery lines as needed to preserve adequate fire flow.
H-20/Item 5	Water requirements for the project, including fire flow, could exceed the capacity of existing feeder lines. 5K-11	Same as above.

CUMULATIVE WATER IMPACTS

H-20/Item 6	While Bayer's water demand would be limited, it would contribute to the growing demand for water in the Bay Area. 5K-12	Bayer will implement a water conservation and reclamation program as described above.
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HYDROLOGY AND DRAINAGE, WASTEWATER AND GROUNDWATER

H-20/Item 1	Capacity: The planned layout of the Project would necessitate improvements to the storm-drain system at the intersection of Fourth and Parker Streets in order to alleviate any flooding there. 5L-3	Bayer will improve the storm drains under 4th Street and Dwight Way.
H-20/Item 2	Runoff Water Quality: The Project would be expected to contribute pollutants to downstream receiving waters, pollutants to include heavy metals, suspended solids, nutrients and floatables. 5L-4	Bayer will implement a Best Management Practices to meet the Federal Clean Water Act.
H-21/Item 3	Spill Hazard: Accidental spills and chronic leaking of hazardous and/or toxic materials can contribute pollutants to storm-water runoff if materials are stored outside. Future production would increase the volume of materials to be stored. 5L-5	Same as above.

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
CUMULATIVE IMPACTS—WASTEWATER		
H-21/Item 1	Trunk Sewer 100 (15-2 Project): The Project would impact the recently upgraded trunk sewer 100, which extends north from Basin 15-103. Sewage flows from the project, added to the current ground water infiltration and rainfall inflow (I/I) contribution, would further aggravate capacity problems. 5L-8	Bayer will evaluate capacity of trunk sewers and local collection systems serving its site and upgrade them as needed to accommodate the construction program.
H-21/Item 2	Pilot Plant: The Pilot Plant would discharge a maximum of 10,000 gallons per day to the sewer, further aggravating capacity problems. 5L-8	Same as above.
H-21/Item 3	Pilot Plant: The proposed Pilot Plant would result in increased sewage flows to local collection lines within Basin 15-103. Most of these older lines are subject to high inflow and infiltration. The proposed project would provide a new local collection system for the Project site, generally following existing and proposed roads. Some on-site collectors would need upgrading to City standards. 5L-9 and 5L-10	Same as above.
H-21/Item 4	RR Collector: Additional sewage flows from the site would impact the facilities in Basin 17 including the RR collector located along the railroad tracks at the western boundary of the site and the smaller local collection lines. The RR collector flows south to the larger Potter Street line, which has a history of capacity problems. 5L-10	Same as above
H-22/Item 5	Potter Street Line: Increased sewage flows from the proposed project would further impact bottleneck sections of the Potter Street line. 5L-10	Same as above
H-22/Item 6	Wastewater Constituents: The Project would generate wastewater containing chemical and biological oxygen demand (COD, BOD) sugars, chemicals used in Research & Development, and amino acids. They could impact the wastewater treatment plant operated by East Bay Municipal Utility District (EBMUD) as well as the ultimate receiving waters in San Francisco Bay. 5L-11	Bayer will continue to obtain proper permits for discharges to the EBMUD sanitary sewer systems.
H-22/Item 7	Local Collection System: The project would increase sewage flows to local collection lines within Basins 15-103 and 17-101. However, it would provide a new local collection system for the project site which would follow the existing and proposed roads at site. 5L-11	Bayer will evaluate capacity of trunk sewers and local collection systems serving its site and upgrade them as needed to accommodate the construction program.
ENVIRONMENTAL IMPACTS—GROUNDWATER		
H-22/Item 1	The seepage of groundwater into Aquatic Park has the potential to be impacted by any contaminated soil or groundwater at the site. Although infiltration at the site is slow, contamination in the soil will eventually enter the groundwater. 5L-16 and 5L-17	In conjunction with Best Management Practices, Bayer will conduct quarterly monitoring of surface water discharge.
H-22/Item 2	Cumulative Water Quality Impacts: The Project's potential impacts on storm water runoff pollution will require numerous measures in cooperation with the City and County. 5L-17	Bayer will implement a Best Management Practice to meet Federal regulations of the National Pollution Discharge Elimination System

DA PAGE/ITEM #	IMPACT	MITIGATION / PROGRAM
ENERGY AND WASTE		
H-22/Item 1	At Project completion, electrical energy consumption would increase an estimated 400% over present levels, to 76,000,000 kWh per year. This would not significantly impact Pacific Gas & Electric's ability to deliver power, but it would contribute to depletion of fossil fuels and use of nuclear power, which creates hazardous waste disposal impacts. 5M-2	Bayer will implement an Energy Conservation Program.
H-23/Item 2	Natural Gas Consumption: in Phase II, natural gas consumption at the site is expected to double, from 845,000 therms to 1,700,000, and at completion of Phase III, to rise approximately 400% over current levels. This increase could contribute to cumulative depletion of fossil fuels. 5M-3	Same as above.
H-23/Item 3	Generation of Non-toxic Solid Wastes: The volume of non-toxic solid waste generated on the site is expected to triple by the end of Phase 3. In cubic yards per month, uncompacted waste is expected to increase from 138 to about 410, and compacted wastes from the present 190 to about 570 at project completion. 5M-4	Bayer will implement a Waste Reduction Program.
CUMULATIVE IMPACTS		
H-23/Item 1	The 25 new approved projects in the West Berkeley area will demand increased energy over time. 5M-5	Bayer will implement an Energy Conservation Program.
H-23/Item 2	The 25 approved projects in West Berkeley will generate an increase in waste by an unknown amount. 5M-5	Bayer will implement a Waste Reduction Program.
SEISMIC SAFETY		
H-23/Item 1	There is potential for damage to structures from ground shaking. A significant impact to workers and emergency responders would be present from falling and moving objects, ground shaking during aftershocks, spilled materials, and/or loss of power and water. 4.3-20	Bayer will implement a Seismic Safety Program for new structures and structures to remain.

Exhibit B

Mitigation Monitoring and Reporting Program for First Major Amendment, 1999

IMPACT	MITIGATION/PROGRAM
CUMULATIVE TRANSPORTATION	
1) Intersection at Seventh Street & Dwight Way (currently at peak period LOSC) would decline to F.	Complete Improvements: (1) Within the existing curb-to-curb, stripe the eastbound and westbound approaches on Dwight Way for two travel lanes (this will require the loss of three parking spaces on the north side of the eastbound approach); (2) To improve intersection efficiency, install overhead signs on the mast arm to clearly mark which lane is used for left turns to Dwight Way (this will require removal of one traffic signal head on the mast arm to accommodate signs). All improvements will result in maintaining a LOS C through the year 2010. Bayer to fund improvements, City to construct.
2) Intersection at San Pablo Avenue & Dwight Way (currently at LOS D) would decline to F.	Complete Improvements: City and Caltrans are currently modifying traffic signal to provide protected left-turn phasing on San Pablo Avenue. The following additional improvements are required: Add No Parking zones on both Dwight Way approaches to provide two lanes at least during peak times (this will result in loss of one parking space on the north side of the westbound approach and three parking spaces on the south side of the eastbound approach during peak times). All improvements will result in maintaining a LOS D through the year 2010. Bayer to fund the additional improvements; City to construct.
3) Intersection at San Pablo Avenue & Ashby Avenue (currently at LOS D) would decline to F.	Complete Improvement Projects: (1) Widen the westbound approach on Ashby Avenue (along the Walgreen's frontage) to provide an exclusive 80-foot long right-turn lane; (2) Stripe a northbound San Pablo Avenue right-turn lane within the existing curb-to-curb; (3) Extend the No Parking zone on the southbound approach of San Pablo Avenue to provide a right-turn lane within the existing curb-to-curb (this will require a loss of two parking spaces); and (4) Provide a protected-permitted left-turn phase for eastbound Ashby Avenue. Improvements as shown in attached Figure 1 and detailed in attached preliminary cost estimates will result in maintaining a LOS D through the year 2010. Mitigation is based on City's having secured sufficient right-of-way to make the needed widening on the westbound approach. Bayer to fund improvements; City to secure right-of-way and construct.
4) Intersection at Seventh Street & Ashby Avenue (currently at LOS D) would decline to F.	7th Street Improvement Project: Bayer to contribute \$750,000 (from funds committed pursuant to the 1992 Development Agreement) to City-sponsored Seventh Street Improvement Project (including improvements to Seventh and Potter Streets) which begins this year. The project will result in maintaining a LOS D through the year 2010. Bayer to fund portion of improvements; City to construct.
5) Intersection at Sixth Street & University Avenue (currently at LOS F) would experience further delays (worsened LOS).	(a) Complete Improvements: Bayer to support City's upcoming project to improve signal interconnect and coordination, by providing vehicle detection (inductive loops) and pedestrian push buttons at up to 4 intersections with semi-actuated signal operations. The overall interconnect and coordination project will identify the 4 intersection locations and when complete allow San Pablo to run more smoothly and to serve as a bypass route for traffic that might otherwise use the Sixth Street/ University intersection. All improvements will result in a LOS improvement and Sixth & University from F to D in the year 2005. Bayer to fund portion of project; City to carry out modifications. (b) Provide Fair Share Funding (based on Bayer's share of growth in peak traffic generated) in the Amount of 4% of Total Costs for Completion of the following improvements: (1) Eliminate two metered parking spaces on the westbound approach on University Avenue and stripe a right-turn lane, and (2) Modify the northbound approach on Sixth Street to provide two left-turn lanes. These improvements will result in a LOS improvement from F to D through the year 2010. Bayer to fund portion of improvements; City to construct.

6) Bicycle Access to and from the Bayer campus could be affected by future cumulative traffic.

7) Bicycle Accessibility throughout West Berkeley could be affected by future cumulative traffic.

8) On-site parking supply and peak-hour trip generation would be impacted.

9) On-site parking supply and peak-hour trip generation would be impacted.

10) On-site parking supply and peak-hour trip generation would be impacted.

11) Both short- and long-term parking supplies would be inadequate.

12) Project traffic could increase year 2010 peak-hour vehicle delay at 5 intersections by 54 total hours.

Parker Street Bicycle Connection:

Bayer to fund (100%) bicycle travel way improvements on Parker Street between Seventh and Ninth Streets to improve safety and convenience for cyclists, up to \$30,000 (improvements to be identified as part of Ninth Street Bicycle Boulevard plan). This work will improve Bayer campus accessibility to and from Ninth Street over current conditions. Bayer to fund improvements; City to construct.

Bicycle Boulevard Participation:

Bayer to pay fair share portion of City-sponsored "Bicycle Boulevard" improvements along Ninth Street, up to \$40,000 (fair share is to be computed based on Bayer's peak hour trips as a percentage of cumulative total West Berkeley trips). Improvements will improve bicycle accessibility throughout entire West Berkeley area. Bayer to fund portion of improvements; City to construct.

West Berkeley BART Shuttle:

Bayer to provide continued funding of publicly administered shuttle program at a maximum level of \$50,000 annually throughout term of Agreement (2022)

Multi-Shift Employment:

Bayer to provide for continuous implementation of swing/graveyard employment (traffic off-peak hours) which averages 18% of total work force throughout term of Agreement (2022). Continuation of this program (which is currently in effect) will reduce both parking and traffic impacts.

TDM Programs:

Bayer to continue implementation of Transportation Demand Management programs from 1992 Development Agreement at current levels throughout term of Agreement (2022). Continuation of this program (which is currently in effect) will reduce both parking and traffic impacts.

Project Management:

Implement parking program to fully satisfy Bayer's projected peak parking demands on site at all times. Parking supply will be verified at time of each new construction project to demonstrate adequacy both during construction and upon completion/occupancy. A total of 1,078 parking spaces must be available with anticipated year 2005 construction, and 1,329 parking spaces with full buildout (anticipated in 2010).

Sum of mitigation measures:

Application of traffic mitigation measures "a" through "k" would provide net reduction in peak hour vehicle delay at five intersections of 350 total hours.

Index

1992 DA	Included in 1999 Amendment	2011 Annual Report Page Number
Article 3, p. 12	yes	10
Exhibits C, D, E		
DEVELOPMENT OF PROJECT SITE		
• Square Footage by Use and Location		
• Map of Project Site		
• Proposed Schedule for Further Development		
Exhibit F, G-5, G-6	yes	15
PUBLIC INFRASTRUCTURE		
Exhibit G-1 BIOTECHNOLOGY EDUCATION TRAINING PROGRAM	yes	23
Exhibit G-2	no	25
EMPLOYMENT HIRING PROGRAM		
Exhibit G-3	no	26
AFFORDABLE HOUSING PROGRAM		
Exhibit G-4	yes	26
CHILD CARE PROGRAM		
Exhibit G-5	yes	15
PUBLIC INFRASTRUCTURE PROGRAM		
Exhibit G-6	yes	20
TRANSPORTATION DEMAND MANAGEMENT PROGRAM		
Exhibit G-7	no	28
HISTORIC PRESERVATION AND PUBLIC ART		
Exhibit G-8	yes	18
ENVIRONMENTAL PROTECTION		
Exhibit G-9	yes	28
COMMUNITY PROGRAMS		
Exhibit G-10	yes	28
ANIMAL CARE AND USAGE		
Exhibit G-11	no	28
PEACE AND JUSTICE PROGRAM		
Exhibit H	no	29
MONITORING AND REPORTING PROGRAM		
Appendix B	yes	42
MITIGATION MONITORING AND REPORTING PROGRAM FOR FIRST MAJOR AMENDMENT, 1999		



Science For A Better Life

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