

US EPA ARCHIVE DOCUMENT

**FINAL PROJECT
AGREEMENT
City of Columbus, Ohio
Project XLC**
eXcellence and Leadership for Communities

September 26, 2000

Ohio Environmental Protection Agency
Ohio Department of Health
Honorable Michael Coleman, Mayor, City of Columbus, Ohio
Columbus Childhood Lead Poisoning Prevention Program
City of Columbus Division of Water
United States Environmental Protection Agency

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I. Introduction to the Agreement

A. Project Description and Purpose

Project XL, which stands for "eXcellence and Leadership," is a national pilot program that allows state and local governments, businesses and federal facilities to develop innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection. In exchange, US EPA and the States issue regulatory, program, policy, or procedural flexibility to conduct the experiment. Under Project XL, private businesses, federal facilities, business sectors and state and local governments are conducting experiments that address the following eight Project XL selection criteria:

1. Produce superior environmental results beyond those that would have been achieved under current and reasonably anticipated future regulations or policies;
2. Produce benefits such as cost savings, paperwork reduction, operational flexibility or other types of flexibility that serve as an incentive to both project sponsors and regulators;
3. Are supported by stakeholders;
4. Achieve innovation/pollution prevention or public health protection;
5. Produce lessons or data that are transferable to other facilities;
6. Demonstrate feasibility;
7. Establish accountability through agreed upon methods of monitoring, reporting, and evaluations; and
8. Avoid shifting the risk burden, i.e., do not create worker safety or environmental justice problems as a result of the experiment.

Project XLC, *eXcellence and Leadership for Communities*, was developed to place special emphasis on communities and local

governmental or regional organizations that are interested in creating an XL project. Project XLC encourages potential sponsors to come forward with new approaches to demonstrate community-designed and directed strategies for achieving greater environmental quality consistent with community economic goals. To participate in Project XLC, applicants must develop alternative pollution reduction strategies pursuant to the criteria listed above for XL projects and in addition address three criteria unique to Project XLC: stakeholder involvement, support, and capacity for community participation; economic opportunity; and community planning. Under Project XLC, EPA provides an opportunity to test flexible and innovative strategies for advancing our nation's environmental goals more effectively and efficiently than current regulatory and policy tools or procedures.

A detailed explanation of how the Columbus XLC project meets the above criteria is given in Section IV of this Agreement.

B. Community Description

The City of Columbus, Ohio is the fifteenth largest City in the U.S. and has a population of 685,320 (projected for 2003) and is located in central Ohio. Population has increased approximately 8% in the last decade. In 1998 the median household income for Columbus was \$34,791 with a mean household income of \$17,397. The City is 206 square miles.

This XLC Project focuses in particular on an area within the City of Columbus where 84 percent of the children with elevated blood lead levels reside. A map of this area is contained in Appendix B of this Agreement. The area of concern falls within 10 zip codes located in predominantly low-income minority neighborhoods, where the housing is generally much older than in the remainder of the City.

C. Purpose of Agreement

This Final Project Agreement ("the Agreement") is a joint statement of the plans, intentions and commitments of the U.S. Environmental Protection Agency ("US EPA"), the State of Ohio, and the City of Columbus to carry out this pilot Project approved for implementation by the City of Columbus Department of Health and the City of Columbus

Water Division.

The Agreement does not create legal rights or obligations and is not an enforceable contract or a regulatory action such as a permit or a rule. This applies to both the substantive and the procedural provisions of this Agreement. While the Parties to the Agreement fully intend to follow these procedures, they are not legally obligated to do so. Flexibility from requirements under the Safe Drinking Water Act and enforceable commitments described in this Agreement will be implemented and become effective through a federal Safe Drinking Water Act variance and a State of Ohio Administrative Action. For more detail, please refer to Section V of this agreement.

All Parties to this Agreement will strive for a high level of cooperation, communication, and coordination to assure successful, effective, and efficient implementation of the Agreement and the Project.

The purpose of this XLC Project is to maximize the City's efforts to reduce lead exposure by providing the City of Columbus with flexibility from regulations that deal with lead in drinking water, so that the City's resources can also be used to address other routes of lead exposure, such as lead paint and dust in the highest risk areas of the City.

D. Signatories

The Parties to this Final Project XLC Agreement are the US EPA, Ohio Environmental Protection Agency (OEPA), Ohio Department of Health (ODH), and the City of Columbus, Ohio.

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II. Executive Summary

Summary of Project

In the past, in an effort to supply the highest possible quality of water to its citizens, Columbus made certain changes to the method it uses to treat drinking water. Inadvertently, the treatment change caused an increase in the level of lead in the drinking water. Under the Federal and State drinking water regulations, if the lead levels rise above the limit established by US EPA and OEPA, the City must begin sampling lead service lines (LSLs) immediately and replacing those lines that contribute high levels of lead.

This project tests a potentially more effective means of addressing health concerns from lead through a program run by the Columbus Health Department and the Columbus Department of Trade and Development, the Lead Safe Columbus Program (LSCP), and will, in addition, involve closer coordination on drinking water treatment issues. Through this project, the US EPA will suspend the LSL sampling and replacement provisions for up to three years beginning if and when the City exceeds the lead limit, provided this occurs within six years of making a treatment change. In exchange for this regulatory flexibility, the Columbus Division of Water will, subject to annual City Council and City Auditor approval, contribute \$300,000 a year for 15 years, beginning January 1, 2001, to the LSCP.

The LSCP provides free blood testing, public education, medical intervention for lead-poisoned children, and grants and loans for lead abatement to residents of Columbus in high-risk areas. The LSCP targets an area consisting of twenty-five high-risk census tracts within ten zip codes in older, predominantly low-income, minority neighborhoods in Columbus, where 84% of all elevated blood lead levels in the City were found.

III. Detailed Project Description

This project takes a multi-media approach to controlling lead by allowing the City to utilize some of the City's drinking water resources to abate a known health hazard through an exposure pathway other than,

and in addition to, drinking water (i.e., household lead paint and dust). It allows the City's Water Division flexibility from LSL sampling and replacement requirements in the drinking water regulations in working through technical issues associated with making treatment adjustments.

The City of Columbus operates a public water system which must comply with national primary drinking water regulations promulgated under the Safe Drinking Water Act (SDWA). Columbus has a good compliance history for lead in the drinking water. The City is also currently maintaining optimal treatment for lead.

In the past, Columbus has made certain changes to its water treatment process, and inadvertently caused an increase in the lead levels in the water. Columbus is concerned that it may need to make treatment changes in the future that may likewise impact lead levels. Under the Federal and State drinking water regulations, if the drinking water in customers' homes exceeds the "Action Level" (AL) of 15 µg/L of lead in more than 10 percent of drinking water tap samples (i.e., exceeds the AL as a 90th percentile value), the City must begin sampling LSLs immediately and replacing those lines that contribute more than 15 µg/L of lead.

Through this project, the US EPA will allow the City a temporary suspension of the LSL sampling and replacement provisions for up to three years beginning if and when the City exceeds the lead AL, provided this occurs within six years of making a treatment change. In exchange for this flexibility, the City Division of Water will contribute \$300,000 a year for 15 years to the LSCP, beginning January 1, 2001. The City Division of Water's annual commitment to contribute \$300,000 to the LSCP is contingent on annual approval of this transfer by the City Council and City Auditor¹.

The LSCP will use the \$300,000 per year to provide free blood testing, public education, medical intervention for lead-poisoned children, and up

¹Any subsequent reference to the City of Columbus Division of Water's commitment to transfer \$300,000 to the LSCP will assume and be contingent on the necessary annual approvals from the Columbus City Council and City Auditor.

to \$100,000 in grants per year for lead abatement to residents of Columbus in the high-risk areas identified in Appendix B. In addition, the LSCP will work with the Department of Trade and Development to provide low interest loans for larger projects. The high-risk area consists of twenty-five high-risk census tracts within ten zip codes in older, predominantly low-income, minority neighborhoods in Columbus, where 84% of all elevated blood lead levels in the City were found. The LSCP will also provide blood testing for all children under six at all sites where lead levels at the tap exceed 15 µg/L.

If Columbus identifies a treatment change (as defined in the Glossary of Terms), the Columbus Water Division will consult with OEPA and US EPA Region 5 prior to making the treatment change. Once OEPA approves the proposed treatment change, Columbus will conduct monitoring in accordance with Section IV.G of this Agreement. Should the tap monitoring indicate a trend of increasing lead levels, the Columbus Division of Water will consult with OEPA and US EPA Region 5, and take steps to reverse the trend. Should Columbus exceed the lead AL, as a 90th percentile value, the City will take aggressive action, short of sampling and replacing LSLs, to minimize the public's exposure to elevated levels of lead and provide public education to consumers on how to minimize lead exposure. Specifically, the City will attempt to reduce lead levels through expeditious but considered treatment modification(s), and conduct targeted public education. If, despite the City's best efforts, Columbus is unable to keep the lead levels below the lead AL, the City will be granted a window of flexibility (up to three years in length) within which to lower the lead levels below the AL, without having to sample and/or replace LSLs.

If the City is unable to bring the lead levels down below the lead AL after three years, or if the City is unable to keep lead levels from rising above 30 µg/L as a 90th percentile value, the City will be required to immediately implement the LSL sampling and replacement requirements in accordance with Ohio Administrative Code Rule 3745-81-84, beginning with the sampling, and if necessary, replacement of 7 percent of the total number of LSLs in the City within one year from the end of the three year period or the exceedence of the upper limit of 30 µg/L as a 90th percentile value, whichever occurs first. Columbus may discontinue sampling and

replacing lead service lines in accordance with Ohio Administrative Code Rule 3745-81-84(G).

If the City is successful in maintaining low lead levels (i.e., does not exceed the lead AL within six years after making a treatment change), the opportunity to use the three year window of flexibility will expire. Should it be necessary in the future, if the City does not exceed the lead AL during the first six-year option period, US EPA would have the discretion to establish a second "six-year option period" with a three year window of flexibility for the City's use during the 15 year project duration.

This project would not allow flexibility from the public education provisions of the LCR. The City would still be required to conduct public education in accordance with 40 C.F.R. 141.85 of the LCR and Ohio Administrative Code Rule 3745-81-85 if the AL is exceeded at any time.

IV. Project XLC Acceptance Criteria

A. Superior Environmental Performance (SEP)

There are two parts to demonstrating whether a project provides SEP. The first part (Tier 1) of the analysis must show that this XLC project will provide equivalent public health protection as compliance with the LCR. The second part (Tier 2) of the analysis must show that this project goes beyond providing equivalent public health protection, and in fact will provide superior environmental performance. Based on a qualitative analysis, US EPA believes this project meets the Tier 1 and Tier 2 criteria of public health protection for the reasons outlined below.

Like most metropolitan areas in the United States, some children are exposed to lead from lead service lines connecting the drinking water distribution system to the individual home, and some children are exposed to lead-based paint in their homes. Moreover, some children may be exposed to lead from both sources. By today's standards, children are considered to be at risk if their blood lead concentration exceeds 10 micrograms per deciliter of blood (Fg/dL).

US EPA performed a comparative benefit analysis to evaluate the

public health impacts of this XLC project.² The analysis in the City of Columbus consisted of 20 areas defined by zip codes. The total number of children in the 20 areas is not known, but for the purposes of this analysis US EPA assumed 40,000 children live in the 20 zip code area.

The LSCP will focus its efforts on a 10-zip code area within this 20 zip code area, in the center of the City. Old homes containing lead-based paint are concentrated in this 10-zip code focus area. The two categories evaluated in the comparative benefit analysis were (1) children (ages 0 to 6) living outside the 10-zip code focus area, but still within the 20 zip code area, in homes that were served by lead service lines and that contained no lead-based paint and (2) children living inside the 10-zip code focus area in homes that contain lead-based paint, some of which may also be served by lead service lines.

The analysis indicated that the benefits from addressing exposure from the lead-based paint substantially exceeded the benefits from addressing the lead service lines. According to the City of Columbus, there are 28,802 lead service lines in the City's water system and most of the lead service lines serve the 10-zip code focus area near the center of the City. US EPA assumes that an unknown number of lead service lines serve non-residential facilities.

The City estimates that the number of children living outside the 10 zip-code focus area of the City that are served by lead service lines but do not live in homes with lead-based paint to be 2,500. US EPA made two simplifying assumptions for this analysis which include 1) lead-based paint is not significantly present outside the 10-zip code focus area and 2) most of the 28,802 lead service lines in the City of Columbus are concentrated in the 10-zip code focus area and/or serve non-residential facilities. US EPA's model indicates that the number of children in this second category with elevated blood lead levels would be approximately 3%, or 68 children. According to US EPA's model, replacing the lead service lines for children in this category would reduce the number of

²Comparative Benefits Analysis, Project XLC: Columbus, Ohio, Robert W. Elias, PhD, National Center for Environmental Assessment, US EPA, Research Triangle Park, NC 27711, August 1, 2000. The document is available at www.epa.gov/ProjectXL/columbus/.

children with elevated blood lead levels by 1%, or 28 children.

The City tested 18,400 children in the 10-zip code focus area in 1995-97. This blood lead level testing indicated that as many as 20% of those children living in the 10-zip code focus area had elevated blood lead levels (>10 ug/dL). The comparative benefit analysis estimates 27,000 children with elevated lead levels which is higher than the City's data would have indicated. US EPA is using this higher estimate because the City did not identify all the children in the 10-zip code focus area, and because the population may have grown since 1995-97.

Based on US EPA's models, the LSCP under Project XLC may be able to reduce the number of children at risk (those with blood lead levels >10 ug/dL) in this 10-zip code area by as many as 7500 or 28% of the total number of children in the focus area. The benefits that would be gained by removing lead service lines were evaluated for the children in the 10-zip code area and were found to be insignificant compared to the combined benefits of parental education and lead-based paint removal.

B. Benefits

Some of the significant elements of the benefits projected to be gained by this project are:

1. From 1995-1997, the Lead-Safe Columbus Program (LSCP) reduced the overall rate of elevated blood lead levels (EBLLs) in Columbus by 19%, on a budget of \$500,000 per year. Out of 603 children with EBLLs, 587 had their blood lead reduced by at least 5 micrograms of lead per deciliter of blood (Fg/dL), and 190 had their blood lead reduced by 15 Fg/dL or more. This project will maintain funding to LSCP at a minimum of \$300,000 a year, beginning January 1, 2001, and ending December 31, 2015, and is expected to continue to achieve similar results.
2. The LSCP will target twenty-five high risk census tracts within ten zip codes in older, predominantly low-income minority neighborhoods in Columbus, where 84% of all EBLLs in the City were found.
3. The LSCP will provide free blood screening at its monthly clinic and

probe screens within the community.

4. The LSCP will offer to test all (including medicaid eligible) children under six at all sites where the lead level at the tap exceeds the AL.
5. The LSCP will offer free screening to all children under 6 living in a building where an EBLL was found. Free screening will be provided in a clinic within the Columbus Health Department on the second Thursday of each month.
6. The LSCP will provide medical case management for all children with EBLs greater than or equal to 15 Fg/dL.
7. The LSCP will conduct lead hazard risk assessments for all children with EBLs equal to or greater than 15 Fg/dL. The City will check for lead in drinking water in all cases of EBLs. The LSCP will conduct lead hazard risk assessments for all privately-owned, low-income residences built before 1978 which apply for rehabilitation activity funding from the Department of Trade and Development (DTD). Privately-owned residences of low-income residents from high-risk areas will be recruited to receive assessments and financial assistance in performing lead-hazard abatement.
8. The LSCP will provide public education/outreach materials in high-risk areas as follows:
 - a. Direct mail: The program will provide Lead Information Packets (LIPS) to the parents of all children tested with a blood lead level of 10 ug/L or greater by direct mail. The packets will provide educational brochures designed to assist the parents in preventing/reducing the risk of and impact of lead hazards.
 - b. Professional Outreach: Educational brochures will be provided to medical providers and clinics serving high-risk neighborhoods for distribution to their patients.
 - c. Community Groups: The program will work with community groups, fairs and social service agencies serving the target neighborhoods (Head Start Programs, Health Fairs, Columbus Metropolitan Housing Authority, etc.) to distribute materials

throughout their communities.

9. The LSCP will issue lead hazard and abatement grants (at an average amount of \$5000 and up to \$10,000) for up to 20 private (low to moderate income) housing owners for a total of \$100,000 per year and facilitate funding of larger lead abatement projects through low-interest loans from the DTD.
10. Prior to making a treatment change, as defined in the Glossary of Terms, the City Water Division will consult with US EPA, OEPA and other treatment experts to minimize the likelihood that the lead Action Level will be exceeded as a result of the treatment change(s). OEPA will provide final approval before any treatment change is made.
11. After making a treatment change, the Water Division will conduct increased monitoring in accordance with Section IV.G of this Agreement, which will identify any trend in increasing lead levels at consumer's taps more quickly, and allow the Water Division to take immediate steps to reverse the trend, again reducing the likelihood that lead levels will exceed the AL.

C. Stakeholder Involvement and Support

The existing Childhood Lead Poisoning Prevention Program (CLPPP) has established relationships with a variety of stakeholders who are in support of the project. They will be directly involved in specifics of the program's design and implementation, and, in many cases, already serve on the Advisory Committee. Those stakeholders include the following:

1. Community groups: St. Stephen's Community House, Neighborhood House, Central Community House;
2. Parent Support Organizations: Help End Lead Poisoning (HELP) and Association of Parents to Prevent Lead Exposure (APPLE); and
3. Institutional and Other Agency Support: Ohio Section of the American Water Works Association, Children's Hospital, Battelle Memorial Institute, Columbus Apartment Association, Columbus

Housing Partnership, Columbus Metropolitan Housing Authority, Ohio Childhood Lead Poisoning Prevention Program (under the Ohio Department of Health), the Alliance to End Childhood Lead Poisoning, the National Association for Lead Safe Housing, and the Columbus Department of Trade and Development.

Eight of the stakeholders provided letters of support for this project.

On May 16, 2000, and June 27, 2000, following an intensive effort that identified more than 50 local and regional stakeholders, public meetings were held in Columbus, Ohio, to solicit input from interested stakeholders on this project and to invite interested parties to participate in the development of this Agreement. In general, attendees were supportive of the project. Meeting summaries and stakeholder comments can be viewed at the following US EPA website:

www.epa.gov/projectxl/columbus/index.htm. A group of diverse potential project stakeholders at the national level were also notified and informed about the project through FAX and direct mailings and referral to the Project XL website for more information.

In addition to meetings for developing the Final Project Agreement, the City will host annual stakeholder meetings, soliciting stakeholder and public participation in evaluations of the progress being made in achieving the goals of this project.

D. Innovative Multi-media Approach

While the CLPPP (and similar programs nationwide) has provided some of the services described in Section IV. B of this Agreement for several years (i.e., they were not initiated solely for this XLC project), the activities initiated as a result of this XLC project will allow the program to continue and could potentially strengthen its efforts in the future. The City of Columbus believes that the LSCP described in the proposal and outlined in this Agreement constitutes an innovative approach to the issue of childhood lead poisoning in its scope and breadth of services. There are four aspects of the program that are key factors in the innovation and effectiveness of the project:

1. All aspects of the childhood lead poisoning issue are addressed. In

addition to traditional screening and risk assessment functions, the project will provide an ambitious and comprehensive education effort which encourages the following: individual responsibility, long-term maintenance, prevention, and corrective measures. This project will target populations most at risk from lead hazards and will provide treatment for lead-poisoned children, develop and encourage community involvement, and address the issue of lead in drinking water with limited flexibility. It will provide up to \$100,000 per year in targeted funding for abatement and will have a "proactive" orientation to identify and eliminate potential hazards before lead poisoning occurs.

2. The comprehensive nature of the education program will provide direct training to those most-at-risk and to those who can have the greatest impact on reducing and/or eliminating lead hazards in a child's environment.
3. This project includes a proactive approach to prevent lead hazards before children are poisoned. The City will seek properties within high-risk areas, offer to perform free lead assessments, and provide up to twenty grants at an average of \$5,000 each (for a total of \$100,000 per year) for lead-hazard abatement. If the project requires further funding, the City will coordinate with the DTD to identify additional funding.
4. The nature of the relationship between the Division of Water and the Columbus Health Department in this project is unique. Public Utility resources will be designated to address aspects of an environmental or health issue outside of traditional drinking water program functions. Columbus notes that funds provided through a small CDC grant and a larger \$1.1 million HUD grant awarded for a three year period in February 1999³ and the funds transferred through this XLC project will all be used to achieve overall City lead program goals. Cities such as Columbus which seek to address important but costly issues such as

³As of July 19, 2000 the City has received applications for over 140 units for use of the funds provided by the HUD grant awarded in February 1999. If all the applicants complete the process, the City will have completely allocated all lead abatement grant monies from its \$1.1 million, round 6 HUD grant.

lead poisoning are struggling to identify resources with which to do so. This relationship provides an invaluable opportunity to maximize available resources on the local level to apply a logical and appropriate response to a serious environmental and health issue.

Simultaneous with the LSCP activities, the City Water Division will be working in consultation with US EPA, OEPA and treatment experts to continue providing optimal water treatment which is designed to maintain minimal lead levels in drinking water.

E. Transferability of the Approach to Other Communities

Similarly situated water systems may be able to adopt a similar multi-media approach to lead reduction. These suppliers must be willing to make extraordinary efforts toward compliance with US EPA and State regulations. They must consult with experts in the field and seek State approval before any treatment changes. In addition, the suppliers must provide significant funding to effective programs that deal with lead paint and dust exposure.

F. Feasibility of the Project

The Columbus Division of Water is considered fully competent and capable of reaching all of its commitments under this project, having completed successful sampling and analysis in accordance with the provisions of the LCR and having reduced lead levels quickly in the past following an exceedence of the AL.

The Columbus Department of Health has a proven track record in delivering services to lead-poisoned children, and has a history of inter-agency cooperation on this issue. Early in 1997, the program was invited to attend the national lead conference in Washington, D.C., conducted by HUD and the National Center for Lead Safe Housing, where Columbus presented on the topic of "Interagency Cooperation and Successful Lead Abatement Programs." Columbus stated that it is considered to be a national model for such cooperative efforts, and was recognized as such by receiving a *Best Practices Award* from HUD in 1998 for its educational program. The City's XLC proposal notes that necessary alliances with government agencies, community groups, parent support organizations,

and professional and business groups are in place. The Columbus Department of Health staff have the necessary expertise and are experienced in providing similar services.

G. Monitoring, Reporting, Accountability, and Evaluation Methods

The primary objective of the LSCP is to ameliorate the impact of an environmental hazard, i.e., lead, on the health and well-being of that portion of the community most at risk from its effects. Columbus intends to monitor, report and evaluate both the reduction of lead in the environment and the reduction in the incidence of childhood lead poisoning, as a result of the LSCP, both within the community at large and within those neighborhoods which have been most at-risk.

Since all blood lead levels of children younger than six years old are reported to CLPPP, the impact of both the program's general public education and targeted education efforts should be reflected in the incidence rate for elevated blood lead levels in the community as a whole and within target neighborhoods. In addition, Columbus will provide lead hazard identification and medical case management, and track follow-up blood lead levels for all those with EBLs. The effectiveness of medical case management, education and abatement efforts will be measured. It is expected that there will be a drop in blood leads for those children receiving services. The impact of the additional funds being directed to the LSCP can be measured by the increased drop in blood lead levels compared with past years.

All data regarding lead hazard risk assessments will be stored in a data base. Whenever abatement activity occurs, dust and soil samples will be collected to verify that safe levels have been attained. The City will also conduct six-month follow-up sampling to determine whether lead-safe levels are maintained. This will provide the City with a valid measure of both the abatement methods used and the long-term effectiveness of education.

When formal education classes are provided for property owners, maintenance crews, painters or parents, pre- and post-testing will be conducted to determine the effectiveness of the education module. In addition, free initial blood lead screening and follow-up blood tests will be

offered to the children of participants. The expected results will be that those children that do not have an elevated blood level at the time of the training will not develop one in the future, and that those with elevated blood levels will have lower lead levels at follow-up.

At the time the Division of Water identifies a proposed treatment change (as defined in the Glossary of Terms), the Water Division will consult with treatment experts, US EPA and OEPA to determine which parameters should be measured, the number of samples, monitoring locations, and monitoring frequencies. Based on that consultation, the OEPA will then designate monitoring requirements (if any) in addition to those listed below. The additional monitoring requirements (if any) will be incorporated into this Agreement through an amendment to this Agreement.

Once a treatment change is approved by OEPA, and the City installs the new treatment, any impacts from these changes will be measured through the analysis of tap water lead sampling and measurement of water quality parameters at each treatment plant and throughout the City as specified in this Section. A requirement of this project is that the City monitor at the frequency established in the table that appears on pages 21 and 22 of this Agreement.

The City will be required to submit to US EPA, ODH, and OEPA, for the life of the project, annual reports describing funding and accomplishments for that year, unless the data shows that drinking water lead levels are rising, in which case the City will be required to report the data as soon as the City discovers a trend that shows lead levels at the tap are rising. Data collected and notable trends should be presented and discussed in the reports. Drinking water monitoring results will be reported as specified in Section VI.D of this Agreement.

General Requirements:

1. Tracking and reporting will be necessary throughout the life of the project;
2. Performance data will be made available to the public;

3. At a minimum, the project sponsor will prepare an annual report; and
4. The reports will be made available on the internet, via the sponsor's or another organization's internet site, and will feature a "hot link" to the US EPA Project XL website. This will eliminate the submission of "hard copy" project reports to US EPA.

Specific elements to be monitored/tracked and reported for the LSCP (and reported in a manner and on a schedule specified by US EPA):

1. Number of grants issued per year for small lead-abatement projects;
2. Number of children screened;
3. Number of children with elevated blood lead levels;
4. Number of children receiving medical case management per year;
5. Number of lead hazard investigations conducted;
6. Number of lead hazard reductions completed;
7. Number of professional educational presentations to medical providers, nursing schools, etc.; and
8. Number of presentations to community groups and social service agencies.

Specific elements to be monitored/tracked and reported by the Water Division:

Parameter	Location	Frequency
Alkalinity	EP ⁴ to DS ⁵	Biweekly

⁴ EP - Entry Point

⁵ DS - Distribution System

Parameter	Location	Frequency
Alkalinity	Distribution System	2 Samples from 25 sites, every 6 months
Calcium	EP to DS	Biweekly
Calcium	Distribution System	2 Samples from 25 sites, every 6 months
Copper	Distribution System	100 samples every 6 months
Lead	Distribution System	100 samples every 6 months
Orthophosphate	Distribution System	2 Samples from 25 sites, every 6 months
Orthophosphate	EP to DS	Biweekly
pH	EP to DS	Biweekly
pH	Distribution System	2 Samples from 25 sites, every 6 months

H. Avoidance of Shifting the Risk Burden to Other Areas or Media

The project is consistent with Executive Order 12898 on Environmental Justice. It will not result in disproportionately high and adverse human health or environmental effects on minority or low-income populations. It is possible that changes to the City's water treatment could cause lead levels to rise temporarily for all City residents. However, this project is designed to ensure that lead levels in drinking water will continue to be minimized. Moreover, even if lead levels were to rise and the LSL sampling and replacement requirements suspended pending treatment modifications, the project incorporates numerous safeguards, as described above, to protect against any disproportionately high lead levels and adverse health effects to any City residents, including minority or low-income populations. In fact, taken as a whole, the terms and requirements of the SDWA variance which will be used to implement this

project, combined with the multimedia impacts of the LCSP, will provide enhanced protection to minority and low-income populations from health risks caused by potential exposures to lead from multiple sources in the City.

I. Capacity for Community Participation

On May 16, 2000, and June 27, 2000, public meetings were held in Columbus, Ohio, to solicit input from interested stakeholders on this project and to invite interested parties to participate in the development of this Agreement. In general, attendees were supportive of the project. Meeting summaries can be viewed at the following US EPA website: www.epa.gov/projectxl/columbus/index.htm

In addition to meetings for developing the Final Project Agreement, the City will host annual stakeholder meetings, soliciting stakeholder and public participation in evaluations of the progress being made in achieving the goals of this project.

J. Economic Opportunity

Based on recent work done in Columbus, if the City were to be required to sample the minimum number of sites, 7% annually, it would cost approximately \$360,000 for the first year based on the number of LSL sites. The cost per year will rise thereafter due to progressively increased difficulty in attaining samples. The aggregate costs of LSL replacement would depend on the number of service lines where sampling indicates lead levels above 15 ug/L or where samples could not be obtained from residential plumbing, and therefore lead levels would be assumed to be above 15 ug/L. Estimates of average per line replacement costs range from \$1200 per line (US EPA estimate based on an average of estimates from water systems around the country) to \$3000 per line (City of Columbus best estimate). There are 28,802 lead service lines in the City of Columbus. In a worst case scenario where the City would have to replace all lead service lines the aggregate costs range from \$34,562,400 (based on a \$1200 per line replacement cost) to \$86,406,000 (based on a \$3000 per line replacement cost).

K. Community Planning

The LSCP is part of a network of organizations dedicated to identifying and reducing the risk of lead poisoning in children under the age of six. These organizations will be directly involved in the design and implementation of the LSCP. By working together, the network will develop and implement a community plan which will provide a wide range of services to the residents of Columbus, including free blood testing, medical intervention for lead-poisoned children, lead hazard identification and remediation, loans and grants for lead abatement, and public education.

V. Requested Flexibility and Implementation Mechanism

A. Requested Flexibility

Through this XLC project, the Columbus Division of Water will be given regulatory flexibility from the LCR if a water treatment change is made, and if that change results in an increase in lead levels above the Action Level. Under Federal and State law, should the City exceed the lead AL, it must begin sampling LSLs immediately and replacing those lines that contribute more than 15 Fg/L of lead. This project will afford the City a temporary suspension of the LSL sampling and replacement requirements (for up to three years) while the City makes treatment modifications. In exchange for this flexibility, the City Department of Water will contribute \$300,000 a year for 15 years to the LSCP. Additionally, the City will take extraordinary steps in considering water treatment changes and conduct increased monitoring in order to maintain lead levels at the lowest levels possible.

B. Legal Implementation Mechanisms

US EPA has identified a Safe Drinking Water Act (SDWA) variance as the appropriate federal mechanism that will be used to implement this project. The legal provisions found at Section 1415(a)(3) of the SDWA give US EPA the authority to grant a variance from a treatment technique:

“upon a showing by any person that an alternative treatment technique . . . is at least as efficient in lowering the level of the contaminant with respect to which such requirement was prescribed.”

US EPA Region 5 proposed a variance for Columbus based on implementation of an alternative treatment technique that will be at least as efficient in lowering the level of lead as LSL sampling and replacement.⁶ US EPA Region 5 intends to issue the variance as soon as practicable, taking into account public comment on the proposal. The variance will become effective only if the City adopts a treatment change, and the treatment change results in an exceedence of the lead Action Level. Columbus will not be considered to be “operating under a variance” unless and until the variance becomes effective. The alternative treatment technique involves closer coordination between Columbus, OEPA and US EPA on water treatment changes as explained below, while allowing Columbus to adjust its existing drinking water treatment, to establish the most effective level of lead treatment in conjunction with its other water treatment processes, so that the entire treatment process will provide the same long-term benefit of protecting the citizens of Columbus as LSL sampling and replacement would. An added benefit is that Columbus has agreed to fund the LSCP at the rate of \$300,000 per year.

To ensure that the alternative treatment technique is as effective as possible, and provides at least an equivalent level of protection as the existing regulations, extra measures will be taken to ensure its effectiveness. The City will consult with experts in the field of lead treatment, as well as the OEPA, and US EPA Region 5. Consultations will involve optimizing the City’s current treatment, based upon the best technical judgment of the relevant experts. Columbus will implement treatment changes (as defined in the Glossary of Terms) only with the concurrence of the State.

Finally, Columbus will carefully monitor levels of lead in the system, and take immediate steps to attempt to reverse any trend towards higher lead levels. Columbus will report monitoring results to OEPA and US EPA Region 5 as specified in Section VI.D of this Agreement.

⁶ A Notice of Availability of City of Columbus Project XL for Communities (XLC) Draft Final Project Agreement and Safe Drinking Water Act (SDWA) Draft Variance was published in the Federal Register on July 27, 2000 (65 FR 46166).

This alternative treatment technique will be at least as efficient as the existing rule in lowering the level of lead in drinking water, since it is designed to ensure that levels are truly minimized system-wide as Columbus implements desired treatment changes. Through this alternative, benefits will be provided to all users, including those users whose LSLs would have been monitored and/or replaced under the existing rule. In addition to these benefits, the project will provide the substantial health benefits associated with the LSCP.

In the event that the City of Columbus exceeds the Lead Action Level, the Ohio EPA intends to issue Director's Findings and Orders addressing the Action Level exceedence and incorporating the schedules for compliance by the City set forth in the FPA. The Ohio EPA reserves the right to address any other of the City's violations of the Ohio Revised Code and the rules adopted thereunder through enforcement or other means.

VI. Intentions and Commitments for Implementation

A. Columbus' Intentions and Commitments

1. If the lead AL is exceeded, the Columbus Water Division will take aggressive steps to lower lead levels at consumer's taps.
2. Upon installation of any new water treatment (as defined in the Glossary), the City Water Division will begin increased sampling in accordance with Section IV.G of this Agreement.
3. If the lead AL is exceeded as a result of the installation of new water treatment, and the City is successful in maintaining or lowering lead levels below the AL by the end of the three year period of flexibility, the City will work with OEPA to re-establish optimal corrosion control treatment for lead (to lower lead levels at consumer's taps as much as possible, taking other existing water treatment into account).

4. The Columbus Water Division will provide \$300,000 in annual funding to the LSCP for 15 years, beginning January 1, 2001.
5. The LSCP will target the area described in Appendix B for prioritizing program activities.
6. The LSCP will provide free blood screening at its monthly clinic and conduct probe screens within the community.
7. The LSCP will test all children under six for blood lead content at all sites where the lead level at the tap exceeds the AL.
8. The LSCP will offer to test all children under six (for blood lead levels) who reside in the same building where a child has been tested at the monthly clinic and found to have an EBLL.
9. The LSCP will provide medical case management for all children with EBLLs greater than or equal to 15µg/dL.
10. The LSCP and/or Columbus Water Division will provide lead public education materials to Columbus residents, health care providers, private day-care and elementary schools, and school district offices in Franklin County.
11. The LSCP and/or Columbus Water Division will provide public service announcements to all local media when appropriate.
12. The LSCP will conduct lead hazard risk assessments for all children with EBLLs equal to or greater than 15µg/dL.
13. The Columbus Water Division will sample tap water in all cases of EBLLs.
14. The LSCP will conduct lead hazard risk assessments for all privately-owned, low-income residences built before 1978 which apply for rehabilitation activity funding from the Department of Trade and Development (DTD).

15. The LSCP will provide lead public education/outreach materials in high-risk areas on an ongoing basis, as follows:
 - a. Direct mail: The program will provide Lead Information Packets (LIPS) to the parents of all children tested with a blood lead level of 10 ug/dL or greater by direct mail. The packets will provide educational brochures designed to assist the parents in preventing/reducing the risk and impact of lead hazards.
 - b. Professional outreach: Educational brochures will be provided to medical providers and clinics serving high-risk neighborhoods for distribution to their patients.
 - c. Community groups: The program will work with community groups, fairs and social service agencies serving the target neighborhoods (Head Start Programs, Health Fairs, Columbus Metropolitan Housing Authority, etc.) to distribute materials throughout their communities.
16. The LSCP will issue up to 20 lead hazard identification and abatement grants (totaling up to \$100,000 per year) for low to moderate income housing owners, and will facilitate funding of larger lead abatement projects through low-interest loans from the DTD.
17. The City will host annual stakeholder meetings, soliciting stakeholder and public participation in evaluations of the progress being made in achieving the goals of this project.

B. US EPA and OEPA Intentions and Commitments

1. US EPA proposed a variance in accordance with the provisions of Section 1415(a)(3) of the SDWA to provide Columbus with the necessary flexibility from the LCR rule requirements governing LSLR and will take final action on the variance after consideration of public comments. The variance will become effective only if the City implements its voluntary agreements under this FPA, adopts a treatment change, and the treatment change results in an exceedence of the lead Action Level. Columbus will not be considered to be "operating under a variance" unless and until the variance becomes

effective. US EPA and OEPA will review compliance with the variance. The standards and reporting requirements set forth in this Section will be implemented in the variance.

2. US EPA and OEPA intend to consult with the City on any proposed treatment changes (as defined in the Glossary of Terms).
3. OEPA will review and approve water system plans for instituting treatment changes (as defined in the Glossary of Terms).
4. Upon approval of any treatment changes, OEPA will designate monitoring requirements (if any) in addition to those specified in Section IV.G of this Agreement.
5. OEPA will review, and if appropriate, approve of requests from the Columbus Water Division for a reduction in the frequency of monitoring for lead and other water quality parameters.

C. Project XLC Performance Targets

LSCP Targets:

1. Up to 20 grants will be issued for up to a total of \$100,000 each year for small lead abatement projects;
2. Number of children screened to be increased from 8000-10,000 to 12,000 per year;
3. All children under six identified with confirmed blood lead levels equal to or greater than 15 ug/dL will be eligible to receive medical management each year. Based on previous experience, the City estimates that 200 children per year will qualify for these services.
4. 95% of those receiving medical case management will have their blood lead levels reduced by at least 5 Fg/dL;
5. Conduct at least ten (10) probe screens each year within target neighborhoods;

6. Provide the nursing staff, laboratory services and medical supplies during “Free Lead Screening Clinic” days on the second Thursday of each month;
7. Conduct professional outreach to at least 50 medical providers each year; and
8. Identify and contact local community groups and agencies which provide medical services in the target areas in order to recruit/require them to sponsor local probe screens, carry and distribute educational materials and provide blood screening services to their client bases. The LSCP will provide educational materials, instruction on venous draw techniques, and training in the causes and effects of childhood lead poisoning.
9. Track all children under six in Columbus who reside in homes where lead levels at the tap are greater than 15Fg/L and provide them medical case management.

Water Division Targets:

The Water Division will work to maintain optimal corrosion control for lead and maintain minimal levels of lead in drinking water at consumer’s taps.

D. Project Tracking, Reporting and Evaluations

Elements to be monitored/tracked and reported for the LSCP:

1. Number of grants issued per year for small lead-abatement projects;
2. Number of children screened;
3. Number of children with elevated blood lead levels;
4. Number of children per year receiving medical case management;
5. Number of lead hazard investigations conducted;

6. Number of lead hazard reductions completed;
7. Number of professional educational presentations to medical providers, nursing schools, etc.; and
8. Number of presentations to community groups and social service agencies.

This information shall be reported to US EPA and OEPA on an annual basis.

Elements to be monitored/tracked and reported by the Division of Water:

The Division of Water will monitor in accordance with Section IV.G of this Agreement and report the results to US EPA Region 5 and OEPA within 10 days following the end of each six month monitoring period, unless there is a lead AL exceedence or lead monitoring results at consumer's taps exceed 30 µg/L as a 90th percentile value, in which case the Division will notify OEPA and US EPA Region 5 within 10 days after learning of the exceedence.

G. Periodic Review by the Parties to the Agreement

The Parties will hold periodic performance review conferences to assess their progress in implementing this Project. Unless they agree otherwise, the date for these conferences will be concurrent with annual Stakeholder Meetings. No later than thirty (30) days following a periodic performance review conference, Columbus will provide a summary of the minutes of that conference to all Direct Stakeholders. Any additional comments of participating Stakeholders will be reported to OEPA, ODH and US EPA.

H. Duration of the Project

This Agreement will remain in effect for 15 years, unless the Project ends at an earlier date, as provided under Section IX (Amendments or Modifications), or Section XI (Withdrawal or Termination) of this Agreement. The variance would become and remain effective only if this

Agreement is in effect. The variance would also contain termination conditions and procedures. This Project will not extend past the agreed upon date, and Columbus will comply with all applicable requirements following this date, unless all Parties agree to an amendment to the Project term (as provided in Section IX).

VII. Legal Basis for Project

A. Authority to Enter Into an Agreement

By signing this Agreement, US EPA, OEPA, ODH, and the City of Columbus acknowledge and agree that they have the respective authorities, discretion, and resources to enter into this Agreement and to implement all applicable provisions of this Project, as described in this Agreement.

B. Legal Effect of the Agreement

This Agreement states the intentions of the Parties with respect to Columbus' XLC Project. The Parties have stated their intentions seriously and in good faith, and expect to carry out their stated intentions.

This Agreement in itself does not create or modify legal rights or obligations, is not a contract or a regulatory action, such as a permit or a rule, and is not legally binding or enforceable against any Party. Rather, it expresses the plans and intentions of the Parties without making those plans and intentions binding requirements. This applies to the provisions of this Agreement that concern procedural as well as substantive matters. Thus, for example, the Agreement establishes procedures that the Parties intend to follow with respect to dispute resolution and termination (see Sections X and XI). However, while the Parties fully intend to adhere to these procedures, they are not legally obligated to do so.

US EPA has tentatively decided that issuance of the variance needed to implement this project is appropriate, and has solicited public comment on the variance. The variance will be effective and enforceable as provided under applicable law.

This Agreement is not a "final agency action" by US EPA, because it

does not create or modify legal rights or obligations and is not legally enforceable. This Agreement itself is not subject to judicial review or enforcement. Nothing any Party does or does not do that deviates from a provision of this Agreement, or that is alleged to deviate from a provision of this Agreement, can serve as the sole basis for any claim for damages, compensation or other relief against any Party.

C. Other Laws or Regulations That May Apply

Except as provided in the legal implementing mechanisms for this Project, the Parties do not intend that this Final Project Agreement will modify any other existing or future laws or regulations.

D. Retention of Rights to Other Legal Remedies

Except as expressly provided in the variance described in Section V of this Agreement, nothing in this Agreement affects or limits Columbus', US EPA's, ODH's, or OEPA's, legal rights. These rights may include legal, equitable, civil, criminal or administrative claims or other relief regarding the enforcement of present or future applicable federal and state laws, rules, regulations or permits with respect to the facility.

Although Columbus does not intend to challenge Agency actions implementing the Project that are consistent with this Agreement, Columbus reserves any right it may have to appeal or otherwise challenge any US EPA, ODH, or OEPA action to implement the Project. With regard to the variance described in section V of this Agreement, nothing in this Agreement is intended to limit Columbus' right to administrative or judicial appeal or review of the variance, in accordance with the applicable procedures for such review.

VIII. Contingency for Unavoidable Delays (or Unforeseen Events)

"Unavoidable delay" (for purposes of this Agreement) means any event beyond the control of any Party that causes delays or prevents the implementation of the Project described in this Agreement, despite the Parties' best efforts to put their intentions into effect. An unavoidable delay can be caused by, for example, a fire or acts of war.

When any event occurs that may delay or prevent the implementation of this Project, whether or not it is avoidable, the Party to this Agreement who knows about it will immediately provide notice to the remaining Parties. Within ten (10) days after that initial notice, the Party should confirm the event in writing. The confirming notice should include:

1. The reason for the delay;
2. The anticipated duration;
3. All actions taken to prevent or minimize the delay; and
4. Why the delay was considered unavoidable, accompanied by appropriate documentation.

If the Parties agree that the delay is unavoidable, relevant parts of the Project schedule (see Section VI of this Agreement) will be extended to cover the time period lost due to the delay. If they agree, they will also document their agreement in a written amendment to this Agreement. If the Parties don't agree, then they will follow the provisions for Dispute Resolution outlined below.

This section applies only to provisions of this Agreement that are not implemented by legal implementing mechanisms. Legal mechanisms, such as permit provisions or rules, will be subject to modification or enforcement as provided under applicable law.

IX. Amendments or Modifications to Agreement

This Project is an experiment designed to test new approaches to environmental protection and there is a degree of uncertainty regarding the environmental benefits and costs associated with activities to be undertaken in this Project. Therefore, it may be appropriate to amend this Agreement at some point during its duration.

This Final Project Agreement may be amended by mutual agreement of all Parties at any time during the duration of the Project. The Parties recognize that amendments to this Agreement may also necessitate modification of the variance or may require development of new

implementation mechanisms. If the Agreement is amended, US EPA and Columbus expect to work together with other regulatory bodies and stakeholders to identify and pursue any necessary modifications or additions to the implementation mechanisms in accordance with applicable procedures. If the Parties agree to make a substantial amendment to this Agreement, the general public will receive notice of the amendment and be given an opportunity to participate in the process, as appropriate.

In determining whether to amend the Agreement, the Parties will evaluate whether the proposed amendment meets Project XLC acceptance criteria and any other relevant considerations agreed on by the Parties. All Parties to the Agreement will meet within ninety (90) days following submission of any amendment proposal (or within a shorter or longer period if all Parties agree) to discuss evaluation of the proposed amendment. If all Parties support the proposed amendment, the Parties will (after appropriate stakeholder involvement) amend the Agreement.

X. Dispute Resolution

Any dispute which arises under or with respect to this Agreement will be subject to informal negotiations between the Parties to the Agreement. The period of informal negotiations will not exceed twenty (20) calendar days from the time the dispute is first documented, unless that period is extended by a written Agreement of the Parties to the dispute. The dispute will be considered documented when one party sends a written Notice of Dispute to the other Parties.

If the Parties cannot resolve a dispute through informal negotiations, the Parties may invoke non-binding mediation by describing the dispute with a proposal for resolution in a letter to the Regional Administrator for US EPA Region 5. The Regional Administrator will serve as the non-binding mediator and may request an informal mediation meeting to attempt to resolve the dispute. He or she will then issue a written opinion that will be non-binding and does not constitute a final US EPA action. If this effort is not successful, the Parties still have the option to terminate or withdraw from the Agreement, as set forth in Section XI below.

XI. Withdrawal/Termination of Agreement

A. Expectations

Although this Agreement is not legally binding and any party may withdraw from the Agreement at any time, it is the desire of the Parties that it should remain in effect through the expected duration of 15 years, and be implemented as fully as possible unless one of the conditions below occurs:

1. Failure by any party to (a) comply with the provisions of the variance, or (b) act in accordance with the provisions of this Agreement. The assessment of the failure will take its nature and duration into account.
2. Failure of any party to disclose material facts during development of the Agreement.
3. Failure of the Project to provide superior environmental performance consistent with the provisions of this Agreement.
4. Enactment or promulgation of any environmental, health or safety law or regulation after execution of the Agreement, which renders the Project legally, technically or economically impracticable.

In addition, US EPA, ODH, and OEPA do not intend to withdraw from the Agreement if Columbus does not act in accordance with this Agreement or its variance, unless the actions constitute a substantial failure to act consistently with intentions expressed in this Agreement and the variance such as a failure on the part of the Columbus City Council and/or City Auditor to annually approve the transfer of \$300,000 from the Division of Water to the Lead Safe Columbus Program. The decision to withdraw will, of course, take the failure's nature and duration into account.

Columbus will be given notice and a reasonable opportunity to remedy any "substantial failure" before US EPA's withdrawal. If there is a disagreement between the Parties over whether a "substantial failure" exists, the Parties will use the dispute resolution mechanism identified in Section X of this Agreement. US EPA, ODH and OEPA retain their discretion to use existing enforcement authorities, including withdrawal or termination of this Project, as appropriate. Columbus retains any existing

rights or abilities to defend itself against any enforcement actions, in accordance with applicable procedures.

B. Procedures

The Parties agree that the following procedures will be used to withdraw from or terminate the Project before expiration of the Project term. They also agree that the implementing mechanism(s) will provide for withdrawal or termination consistent with these procedures.

1. Any party that wants to terminate or withdraw from the Project is expected to provide written notice to the other Parties at least sixty (60) days before the withdrawal or termination.
2. If requested by any party during the sixty (60) day period noted above, the dispute resolution proceedings described in this Agreement may be initiated to resolve any dispute relating to the intended withdrawal or termination. If, following any dispute resolution or informal discussion, a party still desires to withdraw or terminate, that party will provide written notice of final withdrawal or termination to the other Parties.
3. If any agency withdraws or terminates its participation in the Agreement, the remaining agencies will consult with Columbus to determine whether the Agreement should be continued in a modified form, consistent with applicable federal or State law, or whether it should be terminated.
4. The procedures described in this Section apply only to the decision to withdraw or terminate participation in this Agreement. Procedures to be used in modifying or rescinding the variance will be governed by the terms of that legal mechanism and applicable law. It may be necessary to invoke the implementing mechanism's provisions that end authorization for the Project (called "sunset provisions") in the event of withdrawal or termination.

APPENDICES

Appendix A Glossary of Terms

90th Percentile value - Is a value which is used to represent a set of measurements, and indicates that 90 percent of all measurements are below that value.

Action Level - Is the level at which a public water system is required to take certain actions to reduce lead levels.

Columbus XLC Project - Means a project that the City of Columbus will implement to reduce residents' exposure to lead from the drinking water and other sources (such as lead paint and dust).

Distribution System - Means the network of pipelines that extends from the Water treatment plant throughout the City to resident's home plumbing. For this project, monitoring for lead in the distribution system means that the water in resident's homes must be sampled.

Elevated Blood Lead Level (EBLL) - Means the level of lead in the blood that is considered high enough to be of concern. A child is considered to have an elevated blood lead level if the level of lead in the blood is at or above 10 micrograms of lead per deciliter of blood.

Environmental Justice - In determining whether to proceed with this project, the United States Environmental Protection Agency evaluated whether this project would negatively and disproportionately affect low-income and/or minority populations, and has determined that it will not adversely affect these groups.

Entry Point - Means the point at which the water leaves the treatment plant and enters the distribution system.

Final Project Agreement (FPA) - Means an agreement between the United States Environmental Protection Agency, the Ohio Environmental Protection Agency, Ohio Department of Health, and the City of Columbus on how to implement this Columbus XLC project.

HUD - means Housing and Urban Development

Lead-based paint hazard - means 'intact paint containing five thousand parts per million (0.5%) or more, or 1.0 mg/cm² (milligrams per square centimeter) or more lead when that paint is on an interior or exterior accessible surface, impact surface or friction surface; or a non-intact paint containing five thousand parts per million (0.5%) or more, or 1.0 mg/cm² or more lead when that paint is on an interior or exterior surface'.

Lead Hazard Abatement - means the removal of lead sources

Lead Hazard Risk Assessment - is a process which is used to identify sources of lead and determine what the risks to children are in and around their homes from these sources.

Lead Safe Columbus Program - is a program sponsored by the Columbus Department of Health and the Columbus Department of Trade and Development designed to prevent children from being poisoned by lead, and to help those who are already affected. The program is made up of a network of organizations and groups that are all working to reduce childhood lead poisoning.

Lead Service Line (LSL) - means the water pipe that is made of lead and that connects the City's main water line in the street to a building or home.

ODH - means the Ohio Department of Health

OEPA - means the Ohio Environmental Protection Agency.

Optimal Corrosion Control - means the best water treatment the public water system can put in place to reduce lead levels in drinking water.

Optimal Water Quality Parameters - mean the properties of the water (such as alkalinity, pH and orthophosphate levels) that result in the lowest lead levels in drinking water provided by the water system.

Project XL stands for "eXcellence and Leadership," and is a national pilot program that allows state and local governments, businesses and federal facilities to develop innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection.

Public Education - Under the drinking water regulations for lead, any public water system that exceeds the lead 'Action Level' must provide information to the public which explains how to reduce exposure to lead.

Regulators - Means the government agencies that are responsible for enforcing regulations that apply to the City of Columbus. In this Agreement those agencies are the United States Environmental Protection Agency, the Ohio Department of Health, and the Ohio Environmental Protection Agency.

Safe Drinking Water Act Variance - is a document which allows a public water system to legally try out a new approach to providing safe water, rather than doing what is otherwise specifically required by the law, as long as it provides the same or better public health protection.

Stakeholder - Means any person, group, or organization with an interest in this project.

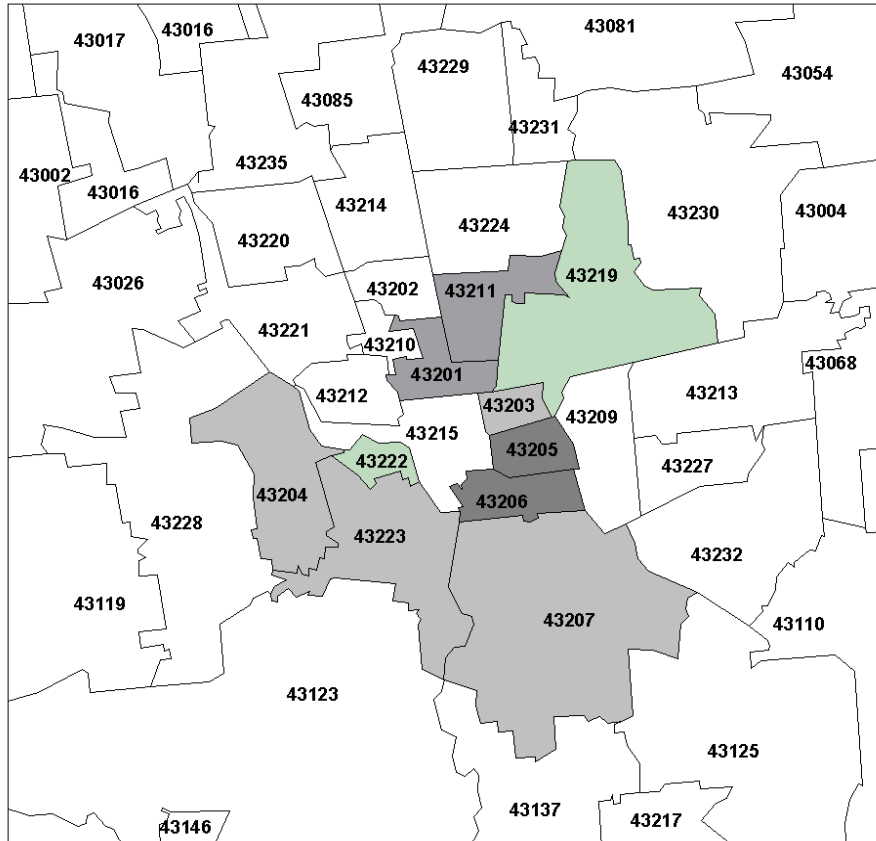
Superior Environmental Performance - All XL projects must show that the project will provide much better environmental or public health protection than would have occurred without the XL project.

Treatment Change - means any change made by the Columbus Water Division which may affect the water quality parameters established by the OEPA, or which may cause the alkalinity to drop below 20 mg/L, or the chloride to sulfate ratio to increase above 0.58.

US EPA - means the United States Environmental Protection Agency.

Appendix B Map

Franklin County Data 1995-1997



Map of Zip Codes in Franklin County
Shaded by Number of EBL's Reported

300 to 386	(2)
200 to 299	(2)
100 to 199	(4)
50 to 99	(2)
0 to 49	(35)