Document Readers

SF-424
Application for Federal Assistance
Title: Linn County Iowa CSAT Phase II

Document Status

Document Phase:	Draft	**Last Modified:**	05/21/2011
Current Editor:	Mike Jones		
Delegate:	Dennis Finney		

IGMS Information

Competition Close Date:			
AAShip:			
Approving Region:	HQ		
Project Officer:	Mike Jones	**PO Phone:**	
Awarding Region:	HQ		
Grant Coordinator:			

Solicitation Information

Opportunity ID:	EPA-OAR-OAQPS-11-05	**Competition ID:**	
Opportunity Title:	Community-Scale Air Toxics Ambient Monitoring	**Competition Title:**	
Opening Date:	03/23/2011	**Closing Date:**	05/23/2011
Grants.Gov Tracking Number:	GRANT10873953		
Date Received by EAPPLY:	05/21/2011		

Submission Information

Submission:	Application	**Grant:**	Non-Construction
Date Submitted:	05/21/2011	**Time Submitted:**	06:49:11 PM
Type of Application:	New		

Applicant Information

	Grants.gov	IGMS
Applicant Type:	B: County Government	
Applicant Name:	Linn County Public Health	
Applicant DUNS #:	0735011080000	
Organizational Unit:	Linn County Public Health	
Sub Org Unit:	Air Quality Branch	
EIN:	42-60043-38	
Address:	501 13th Street NW	
City:	Cedar Rapids	
State:	IA: Iowa	
Zip:	52405-3700	
County:		
POC Name:	Shane Dodge	
POC Phone:	319-892-6015	
POC E-Mail:		
POC FAX #:		

Project Information

Federal Agency:	EPA

CFDA:	66.034
Project Title:	Community Scale Acetaldehyde Air Toxics Project Phase II
Project Period Start:	10/01/2011 **Project Period End:** 03/31/2014

Congressional Districts

Applicant Cong Dist:	IA-02 **Project Cong Dist:** IA-02

Estimated Funding

Federal	$257,328
Applicant	$26,705
(For all applicants including states)	
State	$0
(For state contribution to non-state applicants)	
Local	$0
Other	$0
Program Income	$0
TOTAL	$284,033

Is the Application subject to review by State Executive Order 12372 Process?	No - Program Not Covered By E.O. 12372
Available for Review:	
Is the Applicant delinquent on any Federal Debt?	No

Authorized Representative

Authorized Rep:	Shane Dodge
Title:	Air Quality Branch Manager **Phone:** 319-892-6015

Key Contacts

Authorized Rep:	
Title:	**Phone:**
Address:	
City:	
State:	**Zip:**
Fax:	**E-Mail:**
Payee:	
Title:	**Phone:**
Address:	
City:	
State:	**Zip:**
Fax:	**E-Mail:**
Administrative Contact:	
Title:	**Phone:**
Address:	
City:	
State:	**Zip:**
Fax:	**E-Mail:**
Project Manager:	
Title:	**Phone:**
Address:	
City:	
State:	**Zip:**
Fax:	**E-Mail:**

Budget Summary

Section A - BUDGET SUMMARY

	Estimated Unobligated Funds		New or Revised Budget		
	Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	TOTALS
TOTALS	$0	$0	$257,328	$26,705	$284,033

Section B - BUDGET CATEGORIES

Object Class Categories	Summary of TOTALS
a. Personnel	$74,987
b. Fringe Benefits	$28,091
c. Travel	$1,800
d. Equipment	$24,200
e. Supplies	$25,750
f. Contractual	$102,000
g. Construction	$0
h. Other	$500
i. Total Direct Charges	$257,328
j. Indirect Charges	$0
k. TOTALS	$257,328
Program Income	$0

Comments:

Application Attachments

Grants.gov Application:

Notifications History

OMB Number: 4040-0004
Expiration Date: 03/31/2012

Application for Federal Assistance SF-424

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify):
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received:	4. Applicant Identifier:
05/21/2011	

5a. Federal Entity Identifier:	5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:	Linn County Public Health
* b. Employer/Taxpayer Identification Number (EIN/TIN):	42-60043-38
* c. Organizational DUNS:	0735011080000

d. Address:

* Street1:	501 13th Street NW
Street2:	
* City:	Cedar Rapids
County/Parish:	
* State:	IA: Iowa
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	52405-3700

e. Organizational Unit:

Department Name:	Division Name:
Linn County Public Health	Air Quality Branch

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	Mr.	* First Name:	Shane
Middle Name:			
* Last Name:	Dodge		
Suffix:			

Title:	Air Quality Branch Manager
Organizational Affiliation:	Linn County Public Health
* Telephone Number:	319-892-6015
Fax Number:	319-892-6099
* Email:	Shane.Dodge@Linncounty.org

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act

*** 12. Funding Opportunity Number:**

EPA-OAR-OAQPS-11-05

* Title:

Community-Scale Air Toxics Ambient Monitoring

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Community Scale Acetaldehyde Air Toxics Project Phase II

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: IA-02 | b. Program/Project: IA-02

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2011 | * b. End Date: 03/31/2014

18. Estimated Funding ($):

* a. Federal	257,328.00
* b. Applicant	26,705.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	284,033.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:	Mr.
* First Name:	Shane
Middle Name:	
* Last Name:	Dodge
Suffix:	
* Title:	Air Quality Branch Manager
* Telephone Number:	319-892-6015
Fax Number:	319-892-6099
* Email:	Shane.Dodge@linncounty.org
* Signature of Authorized Representative:	Stephanie Neff
* Date Signed:	05/21/2011

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 4040-0006
Expiration Date 07/30/2010

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Community Scale Air Toxics Ambient Air Monitoring	66.034	$	$	$ 257,328.00	$ 26,705.00	$ 284,033.00
2.						
3.						
4.						
5. Totals		$	$	$ 257,328.00	$ 26,705.00	$ 284,033.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
	Community Scale Air Toxics Ambient Air Monitoring				
a. Personnel	$ 74,987.00	$	$	$	$ 74,987.00
b. Fringe Benefits	28,091.00				28,091.00
c. Travel	1,800.00				1,800.00
d. Equipment	24,200.00				24,200.00
e. Supplies	25,750.00				25,750.00
f. Contractual	102,000.00				102,000.00
g. Construction	0.00				
h. Other	500.00				500.00
i. Total Direct Charges (sum of 6a-6h)	257,328.00				$ 257,328.00
j. Indirect Charges					$
k. TOTALS (sum of 6i and 6j)	$ 257,328.00	$	$	$	$ 257,328.00
7. Program Income	$ 0.00	$	$	$	$

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SECTION C - NON-FEDERAL RESOURCES

	(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Community Scale Air Toxics Ambient Air Monitoring	$ 26,705.00	$	$	$ 26,705.00
9.					
10.					
11.					
12.	TOTAL (sum of lines 8-11)	$ 26,705.00	$	$	$ 26,705.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 100,531.00	$ 44,258.00	$ 12,208.00	$ 12,208.00	$ 31,857.00
14. Non-Federal	$ 10,500.00	2,625.00	2,625.00	2,625.00	2,625.00
15. TOTAL (sum of lines 13 and 14)	$ 111,031.00	$ 46,883.00	$ 14,833.00	$ 14,833.00	$ 34,482.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

	(a) Grant Program	FUTURE FUNDING PERIODS (YEARS) (b)First	(c) Second	(d) Third	(e) Fourth
16.	Community Scale Air Toxics Ambient Air Monitoring	$ 100,531.00	$ 95,131.00	$ 61,666.00	$
17.					
18.					
19.					
20.	TOTAL (sum of lines 16 - 19)	$ 100,531.00	$ 95,131.00	$ 61,666.00	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: 0.00

22. Indirect Charges: 0.00

23. Remarks:

Public Health
Prevent. Promote. Protect.

Linn County Public Health
501 13th Street NW
Cedar Rapids, IA 52405-3700
Ph: (319) 892-6000 Fax: (319) 892-6099

LINN COUNTY IOWA

Community-Scale Air Toxics RFP #EPA-OAR-OAQPS-11-05

Project Title:

Community Scale Acetaldehyde Air Toxics Phase 2 Project

Applicant Information:

Linn County Public Health
501 13th St NW
Cedar Rapids, Iowa 52405

Mr. Shane Dodge
Air Quality Branch Manager

319-892-6015
319-892-6099 (fax)
shane.dodge@linncounty.org

Funding Requested:

$257,328

Total Project Cost:

$284,033

Project Period:

October 2011 – March 2013

DUNS Number:

073501108

1. Basis and Rationale:

Linn County Public Health is proposing a Community-Scale Air Toxics monitoring project to follow up on the results and conclusions obtained from the work on a just concluded CSAT project EPA Grant XA-97704001-1 (F*inal report submitted to Region 7 May 13th*). The previous grant results provided us with baseline data set regarding the community exposure levels and concentration gradients of background, population and industrial locations of the primary carbonyl compounds with the major focus on acetaldehyde. The industrial locations focused on near source concentrations from the known fermentation industry in our community. This grant provided us with results that will allow us to focus on certain locations in our community in regards to reduction of ambient levels of acetaldehyde. The data collected also allowed us to do some comparisons to ambient air quality modeled results for acetaldehyde at a near source location which provided valuable input into the accuracy of the modeling data and to help us determine new/ideal receptor point locations for this proposed CSAT project.

The table below shows the objectives from the previous grant. These objectives remain valid and form the foundation for continuing to characterize acetaldehyde impacts from point sources in Linn County. While we are confident the primary sources of acetaldehyde have been identified, more work remains to quantify the ambient impacts on community receptors and better correlate modeling results to measured concentrations. In addition, Linn County Public Health (LCPH) was successful in negotiating significant emission reductions at the point source identified as contributing to the highest measured acetaldehyde concentrations in a residential neighborhood. LCPH is very interested in assessing the impact from these emission reduction efforts.

As discussed further in the Technical Approach, the monitoring locations during the previous CSAT project were not ideal based on predicted impacts from dispersion modeling analysis. This was mainly due to limitations in monitoring site availability. This project will address those limitations by partnering with the City of Cedar Rapids and neighborhood associations to gain access to areas with the highest predicted concentrations.

Objective	Output	Outcome
Identify culpable sources of acetaldehyde	Report with analysis of ambient air monitoring data and culpability analysis (e.g. ambient air dispersion model) by March 2011	Correlation of monitored acetaldehyde concentrations to modeled point source emissions
Determine contribution of risk from culpable sources	Site specific risk assessment of point source acetaldehyde emissions by March 2011	Priority ranking of greatest community scale risks from acetaldehyde emissions
Develop and implement acetaldehyde emission reduction strategies	Risk analysis of post-reduction strategy demonstrating effective measures by 2012 Development of voluntary and regulatory measures that will reduce increased cancer risk from acetaldehyde in the ambient air by 2013	Acceptance of source-specific voluntary risk reduction measures by 2015 Approval of local regulatory measures necessary above voluntary measures by 2017
Reduce risk from acetaldehyde in the ambient air	Percent of facilities compliant with risk reduction measures by 2020	Reduce the potential increased cancer risk to less than one in one million by 2020

The monitoring results from the Site B location during our previous CSAT project show elevated ambient concentrations of acetaldehyde, which correlates to a cancer risk of one in one hundred thousand according to EPA's Integrated Risk Information System (IRIS). The outcome of reducing potential cancer risk to one in one million was our original long term objective, but with the current background concentration already above this level this objective will need to be adjusted for this proposed grant to make this outcome realistically attainable within our reduction efforts.

Below is the summary table from our Site B location from our previous CSAT project:

2009 – 2010	First 12-Hour Sampling Period	Second 12-Hour Sampling Period	Twenty-Four Hour Values
Average Concentration	4.40 $\mu g/m^3$	5.51 $\mu g/m^3$	4.98 $\mu g/m^3$
Minimum Concentration	0.65 $\mu g/m^3$	0.86 $\mu g/m^3$	1.07 $\mu g/m^3$
Maximum Concentration	25.21 $\mu g/m^3$	45.01 $\mu g/m^3$	28.54 $\mu g/m^3$
This table highlights the results from our greatest area of concern. The sample location was adjacent to Diamond V Mills, which is part of the Time Check Neighborhood. The annual 24-hour average was approximately 4.5 times higher than the established background ambient concentration.			

2. Technical Approach:

The proposed CSAT project will use the previous data findings from the recently completed grant to:

- Continue to better characterize the acetaldehyde levels in targeted modeled locations determined during the previous CSAT project
- Measure and track the progress of the planned emission reduction strategies and efforts for acetaldehyde with our point source industry in the location of our collected highest ambient values (Previous grant Long Term Data Quality Objectives)
- Determine how the planned new and expanding industrial point sources of acetaldehyde in our community near our previous grant Site C will affect ambient concentrations and the impact from our efforts to decrease ambient levels.
- Measure the improvement (risk reduction) of the air quality based on acetaldehyde concentration in a near source Time Check neighborhood that is in the process of major redevelopment and revitalization after the flood of 2008 (See EJ section for more information)

The proposed project will also conduct and focus on:

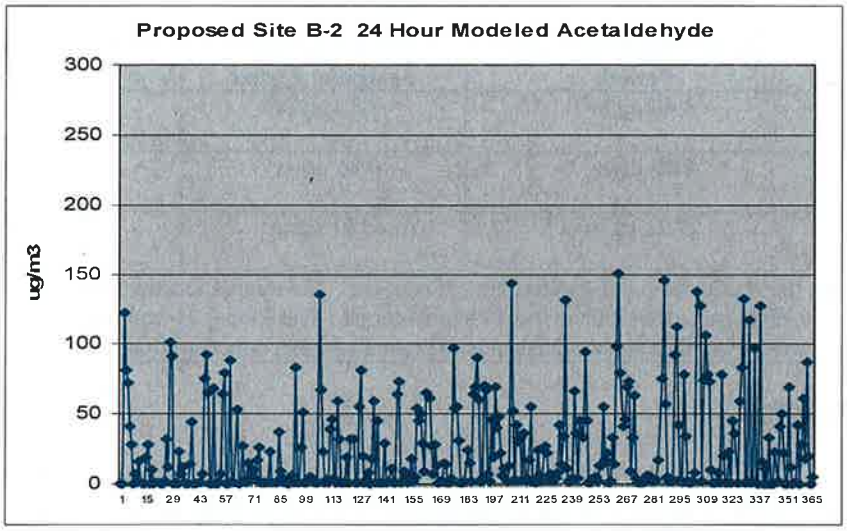
- More in depth evaluation and comparisons of ambient air modeling results as it pertains to 24-hour and 3-hour (short term) modeled results at the selected near source locations (See current modeled data below at the potential point source location)
    - Since our goal is to validate highest short term modeled results, the 3-hour sample collections will be of a *wind direction* driven design as to dates and frequency

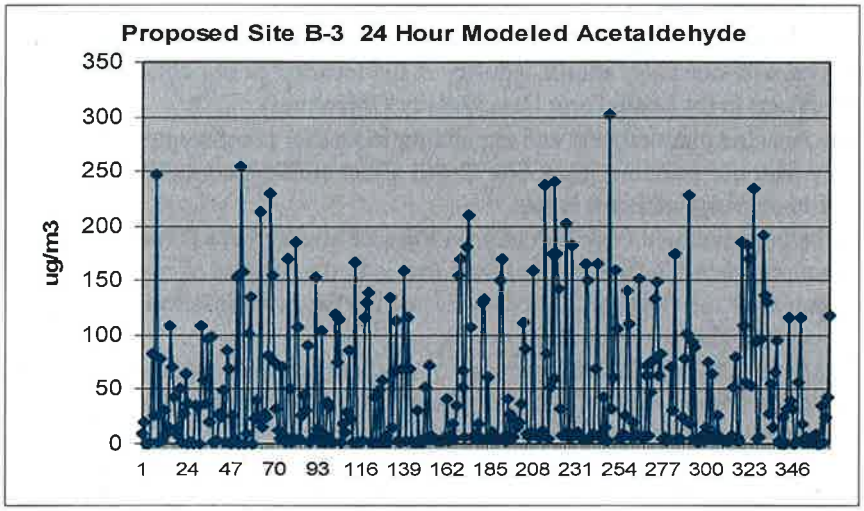
In more detail, this proposed project will be:

- Utilizing the previous 4 grant sites (1-background, 1-population and 2-industrial) to determine the trend of ambient acetaldehyde concentrations in our community as we implement planned reduction strategies with the targeted industry as well as when new sources of acetaldehyde come on line and existing fermentation industrial outputs increase
- Adding one additional site near the primary point source industry using our previous generated wind rose and modeling results to:
    - Provide more and better point source data capture (Wind direction)
    - Provide actual short term (3 hr) population exposure data
    - Validate long (24 hr) and short (3 hr) term modeling results
    - Validate results from our agency's planned and implemented emission reduction strategy program
- Collaborating with industrial, community leaders as well a neighborhood residents in our air quality improvement efforts for the targeted Time Check neighborhood

This proposed grant will focus on Acetaldehyde utilizing TO-11 methodology but will again collect all carbonyl compounds in the methodology for added data submission to AQS.

A visual map of two of the proposed/possible project locations are attached to this grant narrative and are labeled Site B-2 and Site B-3 along with the modeling visual results. Below are the modeling charts and data summary table for these two locations based on 2009 emission values from the industrial source and using current modeling meteorological data from 2008. Our goal is to try to secure one of these two locations for this proposed project. Site B and will be used for determining the ambient concentration trends from previous years as emission reduction efforts are implemented.





	Proposed Possible Site B-2	Proposed Possible Site B-3
Modeled Annual Average Concentration	24.3 µg/m^3	47.8 µg/m^3
Modeled 24 Hour Maximum	150.4 µg/m3	302.5 µg/m3
Modeled Range of Maximum top 365 3-Hour Values	*63 µg/m3 – 586 µg/m3*	*136 µg/m3 -941 µg/m3*

We anticipate that these modeled values will be less at these receptor points after our current emission reduction plans and program strategies with the local industrial source are implemented. We will plan on re-running this model each time new and updated emission rates and emission point location data is available to compare the modeled values to the actual measured ambient concentrations.

The below table indicates the planned collection schedule for these monitoring locations in the grant network. We want to maximize data collection for our objectives while also staying within the proposed budget for this number of sites and level of collection. The actual monitoring period for this project is proposed based on two full calendar years with a projected start of January 2012 and end December 2013. Pre-project work which involves site setups, procurement activities and contractual items and post project work such as data analysis and final report development will make this grant run for a total period of 2.5 years.

It should be noted that Site A is our on-going Iowa DNR Air Quality Bureau monitoring site and the schedule for this site is dictated by our contract and funding with the Iowa DNR. The data from this site will be used in our grant data assessment but will not be funded by this proposed grant.

Planned Monitoring Schedule

Site ID	Location	Scale	Purpose	Schedules	Duration
Site A	Linn County Public Health	Neighborhood	Population Exposure Trend Analysis	1/6 Ozone 1/12 Non-Ozone	1@24 hr
Site B-1	Time Check Neighborhood	Point Source/ Neighborhood	Population Exposure Modeling Validation- (24 Hr) Emission Reduction & Program Validation Trend Analysis	1/6 Ozone 1/12 Non-Ozone (If No Snow Removal Issues)	1@24 hr
Site B-2 or B-3 (New Site TBD)	Time Check Neighborhood	Point Source/ Neighborhood	Population Exposure Modeling Validation - (24 & 3 Hr) Emission Reduction & Program Validation	1/6 Ozone 1/12 Non-Ozone	1@24 hr 8@3hr (Date Selected based on WD/ 12 per Year)
Site C	Hawkeye Area Community Action Program	Point Source	New Source Impacts Existing Source Increases Impacts Trend Analysis	1/6 Ozone 1/12 Non-Ozone	1@24 hr
Site D	City of Coggon	Background	Background Levels Trend Analysis	1/12 Year Round	1@24 hr

3.Data Analysis:

For this proposed project the data analysis work that will be conducted include:

- Ambient concentration levels trend analysis and characterization
  - Utilizing previous grant and proposed grant sites data
  - Used to determine local and national programmatic efforts in acetaldehyde emission reductions
- Population Exposure risk assessment/risk reduction analysis
  - At all population exposure sites
  - Compare to current benchmarks of risk for acetaldehyde
- Near Source Air Quality Modeling evaluation analysis
  - Using Site B and Site C locations for 24 hr model validation as well as Site B-2 for 3 hr model validation
- Validation of agency programmatic efforts in acetaldehyde emission reduction and air quality improvement
  - Near source site data analysis as well as all sites trend analysis

4. Environmental Justice Impacts:

The location of our Site B, Site B-2 and Site B-3 proposed monitors are located in an area of Cedar Rapids called the Time Check neighborhood. This is one of the oldest neighborhoods in Cedar Rapids with its beginnings in the 1870's. This community is a tight-knit blue collar neighborhood. When the floods of 2008 struck our city, the Time Check neighborhood was one of the first to be evacuated and one of the hardest hit due to its location near the Cedar River. The neighborhood suffered substantial damage to industrial, commercial and residential properties. The community is still in the rebuilding phases from this flood and redevelopment efforts are underway to revitalize this location and to promote housing and commercial reinvestment.

The following link provides more information into the history of the Time Check neighborhood and the City of Cedar Rapids planned revitalization/redevelopment of this neighborhood location in our community after the flood of 2008.
http://www.ndccedarrapids.org/index.php?option=com_content&view=article&id=12&Itemid=2

Our efforts in improving the air quality in this neighborhood will be a vital component of this revitalization and rebuilding effort. Based on our previous CSAT grant results and associated dispersion

modeling, the residents of this neighborhood are directly impacted by acetaldehyde emissions from an important industrial business and community partner. Our agency is currently in the process of working with the facility to reduce acetaldehyde emissions from fermentation processes in our efforts to improve air quality in this neighborhood.

Below are some statistics from the EPA EJView Website in regards to this Time Check neighborhood. We have selected a 1 mile radius from the industrial source for our demographic data as this area would have the highest impact from the point source of acetaldehyde.

Total Persons:		**11,257**	
Population Density:		**3963.54/sq. mi.**	
Percent Minority:		**11%**	
Households in area:		**4,632**	
Households On Public Assistance:		**228**	
Housing Units Built <1970		**86%**	
Housing Units Built <1950		**69%**	
Persons Below Poverty Level:		**1,132 (10.8%)**	
Race Breakdown	**Persons (%)**	**Age Breakdown:**	**Persons (%)**
White:	10,151 (90.2%)	**Child 5 years and less:**	852 (7.6%)
African-american:	428 (3.8%)	**Minors 17 years and younger:**	2,454 (21.8%)
Hispanic-Origin:	257 (2.3%)	**Adults 18 years and older:**	8,804 (78.2%)
Asian/Pacific Islander:	284 (2.5%)	**Seniors 65 years and older:**	1,641 (14.6%)
American Indian:	37 (0.3%)		
Other/Multiracial:	250 (2.2%)		
Education (Persons 25 & older)	**Persons (%)**	**Income Breakdown:**	**Households (%)**
Less than 9th grade:	375 (5.4%)	**Less than $15,000:**	950 (20.5%)
9th-12th grades:	990 (14.3%)	**$15,000-$25,000:**	669 (14.4%)
High School Diploma:	2,763 (40.0%)	**$25,000-$50,000:**	1,650 (35.6%)
Some College/2-yr:	1,693 (24.5%)	**$50,000-$75,000:**	1,006 (21.7%)
B.S./B.A. or more:	1,080 (15.6%)	**Greater than $75,000:**	366 (7.9%)

5. Community Collaboration/Outreach:

In regards to the Time Check neighborhood our agency will seek and be involved in various partnerships in our emission reduction efforts with the partners that include the fermentation industry, City of Cedar Rapids, the Northwest Neighborhood Association as well as the Neighborhood Development Corporation of Cedar Rapids (NDCCR).

NDCCR is a non-profit, community focused organization that hopes to design and implement a comprehensive approach in order to revitalize and strengthen distressed neighborhoods within the City of Cedar Rapids and to encourage community sustainability. NDCCR was created in 2009 after the 2008 flood as part of the city's effort towards comprehensive recovery for affected neighborhoods including the Time Check neighborhood area. NDCCR is working to change the way people view deteriorating or flood damaged neighborhoods and our agency feels that our efforts to improve air quality in one of their targeted neighborhoods will provide a valuable partnership effort with the City of Cedar Rapids as well as the Time check neighborhood in a hopeful revitalization effort. We have had initial communications with NDCCR and have provided project site location proposals to the Cedar Rapids Community Development branch. We will be meeting with both parties in the near future to go over the details of our proposed project.

The following link will provide more in depth information into NDDCR.
http://www.ndccedarrapids.org/index.php?option=com_content&view=article&id=1&Itemid=2

As for the Northwest Neighborhood Association (which includes Time Check) they meet on a monthly basis. Our agency plans to host an initial meeting to provide information regarding our proposed grant project plan. In addition, we will provide quarterly and annual progress reports in our efforts to keep the community informed of air quality improvement efforts.

5. Environmental Results- Outcomes, Outputs and Performance Measures:

For this project a number of short, mid and long term objective, output and outcomes as well as performance measures have been developed to evaluate the effectiveness of this monitoring project for Linn County.

Project (Short-term) Objectives, Outputs and Outcomes

Objective	Output	Outcome	
Provide Quality Data	Quality Data Goals	Acetaldehyde Precision	Target Annual CV=+/-10%
		Acetaldehyde Accuracy Bias	Instrument Bias Upper and Lower Probability Limits = +/- 10% Absolute Concentration Bias = +/- 10%
		Data Completeness	>75%
		Representativeness Scale	Neighborhood (population), Middle (source) and Regional (background)
		Comparability	Similar Instrument and Analysis Selection of Other State Agencies
Provide Quality Data	Quality Control of Data	Duplicate Field Samples (Precision)- 10% of samples at Public Health Site Accuracy (Bias) – Quarterly Flow Audits Pooled Upper and Lower Probability Limits and Duplicate Field Samples for Absolute Bias Sample Field Blanks 10% at each site Carbonyl Breakthrough Samples Analyzed Once per Season at each site Instrument Zero Test Acceptance Prior to Project Start	
Community/Industry Collaboration/Involvement	Routine meetings and update reports	Provide quarterly and annual update reports to all partners within the project. Annual meetings to discuss previous data findings in regards to project objectives	

Project (Mid-Term) Objectives, Outputs and Outcomes

Objective	Output	Outcome
Accurately characterize the highest ambient impact of acetaldehyde from Diamond V Mills on the Time Check neighborhood and continue to characterize the impacts from other fermentation processes at major sources of hazardous air pollutants in Linn County.	Secure access and deploy monitors in the highest predicted impact areas around Diamond V, ADM and Red Star Yeast by 2012.	Ambient monitors are operational in the areas with the highest predicted concentrations as determined by dispersion modeling by 2012 – provided access to these areas can be secured. Otherwise, the monitors will be located as close as possible to the highest predicted concentration areas as site availability allows.
Correlate predicted ambient concentrations of acetaldehyde using dispersion modeling with measured concentrations from the CSAT monitoring network	Determine if there is a statistically relevant relationship between modeled and measured concentrations of acetaldehyde by 2014	Determination of the validity and accuracy of the 24 hr and 3 hr (maximums) modeled data sets at the targeted project site locations using collected ambient monitoring data by 2014

Post- Project (Long-Term) Objectives, Outputs and Outcomes

Objective	Output	Outcome
Perform project within budget and schedule	Compliant Budget	Within 5% of project budget
	Ambient Air Data Summary Report	Delivered by June 30, 2014 after conclusion of second complete season and receipt of all analytical data
Reduce risk from acetaldehyde in the Time Check neighborhood	Develop and implement additional acetaldehyde emission reduction strategies with Diamond V Mills by 2016	The 24-hr annual average concentration of acetaldehyde will be reduced by 40% from the measured baseline concentration of 4.98 ug/m3 as determined during the prior CSAT project
Influence federal, state and local regulatory policy in regards to non-nutritional fermentation sources	Share the results of our CSAT project with NACAA members to determine if other state and local agencies have similar acetaldehyde exposures from non-nutritional fermentation sources by 2014.	Petition EPA to consider developing a NESHAP source category for non-nutritional yeast manufacturing by 2016.

7. Programmatic Capability and Past Performance:

40 CFR Part 58 defines the local agency as any local government agency other than the state agency which is charged with the responsibility for carrying out a portion of the SIP. LCPH falls within this category and is responsible for all permitting activities, facility inspections and ambient air monitoring activities for our local area working under a 28E agreement with the Iowa DNR Air Quality Bureau. LCPH has been functioning as a air pollution control agency since the 1960's.

Our agency has just completed a previous CSAT grant "EPA Grant XA-97704001-1" which provides an example of the type of projects we have been recently involved with and for which this grant proposal is a follow up to. Progress reports were provided to the grantor on a quarterly basis to keep them informed of the progress or any issues that we had during the grant period and data collection activities. These reports included budgetary information along with the technical and field activities associated with the grant and Data Quality Objectives (DQO). A final report was provided in mid-May 2011 after all data analysis and data reviews were completed to our satisfaction.

Our agency has many years of experience in all areas of an Air Quality program including ambient air monitoring, which includes air toxics sample collection activities. Kyle Lundberg the Laboratory Services Director who is the technical manager of this project has 29 years of experience in various monitoring and laboratory activities and functions. Wanda Reiter Kintz PhD is the Environmental Chemist that will be involved in this proposed project and was the primary chemist for our just recently completed CSAT project. Shane Dodge our project manager is the Air Quality Branch Manager and is involved in the permitting, enforcement, planning and educational outreach activities for LCPH. He has 15 years of air quality experience including private and public sector roles. As required in all of our activities, Linn County has approved Quality Management Plans, Quality Assurance Project Plans as well as many Standard Operating Procedures for all of our field collection and quality assurance activities in our monitoring program. Our agency has many capabilities from the many years of experience to provide a quality run program and grant project.

8. Budget:

For this proposed CSAT project the below items are indicated as a funding need to fulfill the requirements of the project plan noted in the above CSAT narrative.

Personnel-

For this project LCPH will be utilizing an Environmental Chemist from our Laboratory Services Division to fulfill the majority of the time needs to complete this project. For this grant Wanda Reiter Kintz, PhD, has been identified as the personnel that will be utilized for this project. Wanda was the primary staff involved in our just completed CSAT grant. Wanda is a full-time employee with our agency and her designated time to be spent on this proposed CSAT project is determined at 0.50 FTE. Based on her current salary of $58,573 and including an anticipated 3% union pay increase for each year the planned salary amount for this 2.5 year project would be $74,987. Our agency fiscal year is from July through June each year and this grant will overlap three of our budget fiscal years and union contract periods. Other personnel in our agency that will be utilized in this project but will not be billed to this grant (in-kind services) are the Laboratory Services Director Kyle Lundberg as well as the Project Manager Shane Dodge. The Laboratory Services Director is the technical manager for the monitoring functions of this grant. He is also responsible for the procurement of all supplies and contract and lease agreements for any location needs. In addition he also provides the technical support for all site, design, operating and quality assurance activities. The anticipated FTE to be utilized by the technical manager is 0.05 FTE for a total in-kind salary amount over 2.5 years with anticipated 3% increases of $9,672. The Air Quality Branch Manager, Shane Dodge, is the Project Manager and his function is to assure the objectives, outputs and outcomes are tracked and monitored for the project and that all routine reports and financial report submittals are completed in the required time frame. He will also manage the ambient air modeling portion of this grant. The anticipated FTE to be utilized by the project manager is 0.05 FTE for an in-kind salary amount over 2.5 years of $10,618.

Fringe Benefits-

Our agency has various fringe benefits that also need to be considered as part of the overall cost of the proposed project. Some of the fringe benefits that are included in this cost are:

- Longevity Payments, FICA, IPERS (Retirement Program), Health and Dental, Long Term, Disability Insurance and Life Insurance Premiums

For this grant the amount of fringe benefits for the environmental chemist would be $28,091.
The fringe benefits for the technical manager in-kind support would be $3,141.
The fringe benefits for the project manager in-kind support would be $3,274.

Travel-

It would be planned for the environmental chemist to attend a National EPA Air Toxics Conference during this grant period to provide input and to meet with others involved in similar CSAT projects. These conferences are a valuable part of this project and the anticipated cost of this conference with travel and expenses would be $1,800.

Equipment-

Equipment to be utilized for this project is determined by the design. To control costs LCPH will utilize the monitoring equipment from the previous CSAT grant. However we will need to purchase one additional ATEC sampler and trailer to provide the needed coverage that is planned at the site that will be collecting the occasional 3 hour samples in a 24 hour period. The sampler that is planned to be purchased if awarded this grant would be an ATEC brand 8000-2 Carbonyl sampler at a cost of $15,000. This sampler has an 8 module attachment for the 3 hour grabs as well as a duplicate channel for a 24 hour grab to compare 24 hour to the 8-3 hour collections. The site trailer (if not leveraged) and Met station expense is anticipated to be $ 9,200. Total equipment costs would be $24,200.

Supplies-

There will also be various laboratory supplies such as spare parts, Zero air tests, security fences and electrical setup as well as on going monthly and potential sampler repair costs for each of these sites and samplers. Total anticipated supplies cost would be $25,750.

Contractual-

Analytical work for this project will be included under this cost category for analysis of the collected samples by our selected analytical laboratory the State Hygienic Laboratory of Iowa which based on the planned schedule would result in a total of approximately 580 samples (including 40 blanks and breakthrough) analyzed along with the associated AQS data strings for required submittal purposes. This work would be in the form of a contract and would be of the non-competitive procurement method. The non-competitive classification is due to the fact that our current established Iowa DNR toxics site at Public Health location has the sample collections analyzed by this laboratory as well as for all other Iowa DNR sites. We also had utilized this laboratory for our past CSAT grant project and keeping the laboratory the same will provide us with confidence in the data results when compared to the previous project. The laboratory provided excellent customer service and analytical precision. The anticipated amount of this analysis contract would be $89,000 over the two years of sample collection from the grant related sites.
Data analysis contractual work would be utilized by our agency to provide additional support in this area in the period of time after all data has been received from the project and as the final report is under development. This type of contractual support would be in the form of pollution rose and computer modeling rose visuals and comparisons as well as for wind direction/pollution relational observations. The amount estimated for this contract work based on previous experience would be in the amount of $13,000 and would be a non-competitive procurement method.

Other Costs-

Community Outreach costs are included in this category. The cost for the initial project collaboration meeting as well as the quarterly and annual reports or reviews and printing are estimated at $500.

Indirect Charges-

No indirect charges are anticipated for the proposed CSAT grant project. We plan to in-kind any professional services for the technical manger and project manager.

	EPA Funding	*** Cost Share
Personnel		
Project Manager 0.05 FTE @2.5 years		$10,618
Technical Manager 0.05 FTE @ 2.5 years		$9,672
Project Environmental Chemist 0.50 FTE@2.5 years	$74,987	
Total Personnel	**$74,987**	**$20,290**
Fringe Benefits		
Project Manager		$3,274
Technical Manager		$3,141
Project Environmental Chemist	$28,091	
Total Fringe Benefits	**$28,091**	**$6,415**
Travel		
Air Toxics Conference	$1,800	
Total Travel	**$1,800**	
Equipment		
ATEC 8000-2	$15,000	
Trailer and Met Station	$9,200	
Total Equipment	**$24,200**	
Supplies		
Zero Air Tests 4 samplers	$4,500	
Electrical Setup Cost 1 site	$1,750	
Electrical Cost 2 years all sites	$3,500	
Security Fence	$3,500	
Expendables/Parts/Site Items	$2,500	
Sampler Repair Costs (if needed)	$10,000	
Total Supplies	**$25,750**	
Contractual		
SHL Sample Analytical/Data	$89,000	
Data analysis contractual work	$13,000	
Total Contractual	**$102,000**	
Other		
Community Outreach	$500	
Total Other	**$500**	
Total Indirect Charges	**$0**	
Total Funding	**$257,328 (fed)**	**$26,705 (non-fed)**

9. Leveraging:

For this project we have identified leveraging of a City of Cedar Rapids owned residential lot to accomplish our projects objective and outcomes. The City of Cedar Rapids has purchased a number of residential lots in our target reduction neighborhood as part of a flood buyout program and we will be in discussions with Cedar Rapids to obtain use and access to one of these buy-out lots in our above noted elevated modeled location. We also are leveraging two of the in town point source trailer site locations that we used in our original project. One is on the Cedar Rapids School property and a second is on the Hawkeye Area Community Action Program (HACAP) property. Our rural site trailer used for background location and sample collection is utilized on the property of Coggon Elementary School.