

HOUSING AUTHORITY OF THE CITY OF BREMERTON

November 23, 2011

TO: EPA Region 10, Office of
Brownfields Cleanup and Redevelopment
ATTN: Susan Morales
Mailstop:ECL-112
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Environmental Management Support, Inc.
ATTN: Mr. Don West
8601 Georgia Avenue, Suite 500
Silver Spring, MD 20910
Phone 301-589-5318

RE: Bay Vista's "Landfill Methane Gas Mitigation" Project

Dear Sir/Madam:

The Housing Authority of the City of Bremerton (BHA) has enclosed the cleanup grant application for the proposed project referenced above.

a. Applicant Identification:

Housing Authority of the City of Bremerton
4040 Wheaton Way, Suite 215, Bremerton, WA. 98310

b. Applicant DUNS number: 059666644

c. Funding Requested:

- i) Grant type: Cleanup
- ii) Federal Funds Requested: \$200,000 We are not requesting a cost share waiver.
- iii) Contamination: Hazardous Substances

d. Location: The site is located in Bremerton, Washington.

e. Property Name and Site Address: The property is named Bay Vista and the cleanup program is referred to as the landfill at Bay Vista. The parcel is adjacent to and east of 110 Russell Road, Bremerton, Washington 98312.

f. Contacts:

- i) Project Director: Mike Brown, (360) 616-7160, FAX# (360) 616-2916; email: mbrown@bremertonhousing.org; mail: Bremerton Housing Authority, P.O. Box 2189, Bremerton, WA 98310.

4040 Wheaton Way • P.O. Box 2189 • Bremerton, WA 98312 • Phone: (360) 616-7160 • TTY: (360) 377-8606 • Fax: (360) 616-2916

The Housing Authority of the City of Bremerton (BHA) does not discriminate on the basis of race, color, creed, national origin, religion, disability, sex, sexual orientation, age (over 40), military status, whistleblower retaliation, or familial status in admission or access to its programs.
If you need to request a reasonable accommodation, contact the BHA Section 504 Coordinator at (360) 479-3694.



Equal Housing Opportunity



Barrier Free

- ii) Executive Director: Kurt Wiest, (360) 616- 2815, FAX # (360) 616-2916; email: kwiest@bremertonhousing.org ; mail Bremerton Housing Authority, P.O. Box 2189, Bremerton, WA 98310.
- g. Date Submitted: November 23, 2011.
- h. Project Period: March, 2012 – September 30, 2013.
- i. Population:
 - i) City of Bremerton is approximately 38,000 (2000 Census). Urban area is approximately 100,148 Acres.

BHA appreciates this opportunity to apply for these funds and looks forward to joining the Environmental Protection Agency in this important undertaking. We would especially like to extend our thanks to the staff and industry partners that have lent their time through the workshops and have provided input into this application for completeness.

Respectfully submitted,



Kurt Wiest
Executive Director

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Ranking Criteria for Cleanup Grants

1. Community Need

a. Health, Welfare and the Environment

The City of Bremerton is located in Kitsap County, Washington, just west across the Puget Sound from Seattle and was once a thriving Navy and Port city whose early enterprise centered on the timber industry. By the early 70's, business and retail centers spread out into unincorporated areas followed by a steady slide of economic decline and decay within the City for the past 30 years. Not one new building was constructed in this urban core between 1976 and 2002. The presence of brownfield sites was a contributing factor to the ongoing abandonment of the urban core. During a 2000 Kitsap County Community-Wide Brownfield Assessment, 500 potential brownfields sites in Kitsap County were evaluated for the purpose of developing a list of 20 priority sites to be targeted for detailed assessment and cleanup. Eight of the top 20 priority brownfields in Kitsap County are in Bremerton (population 37,729). 40 percent of the top 20 sites identified are located within one of four major cities in the county illustrating the fact that historical site uses typically resulting in the creation of brownfields were concentrated in Bremerton, resulting in a disproportionate impact. This concentration of vacant, underutilized and contaminated sites, (many of which are located in residential areas) is also where the most appropriate reuse requires expensive cleanup remedies. Therefore, these small, contaminated properties lay stagnant while surrounding communities sink further into decline. The eight sites in the target area, generally defined as Kitsap County census tract 810, all have significant contamination and comprise over 20 acres of area. Several of these sites are located near the shoreline and the primary mechanism for contaminant migration is groundwater transport from the contaminated properties to the near-shore environment. Once in the near-shore sediments and marine waters, the contaminants impact ecological receptors and humans engaging in swimming, shellfish gathering, and fishing. Native Indian Tribes do harvest commercially along all the shorelines of the County and are entitled to half of the harvestable product. The methane gas trapped within the buried landfill (Periwinkle Park) poses a health and safety concern for onsite or offsite personnel, it also presents a concern over lateral subsurface migration which could direct the gas to adjacent buildings.

Sensitive populations, including children, and women of child-bearing age, disabled persons and residents living in poverty are the major inhabitants of the target area. These residents are disproportionately impacted by environmental problems compared to others in the county and state. The concentration of unremediated brownfields in the target area is evidenced by the continuing degradation of the target area. Adding to this impact is the following demographic information about the targeted area:

44% of working age residents without disabilities are unemployed; 54% of households earn less than \$25,000 per year; 66% of the residences are non-owner occupied; Over 44% of families receive some form of public assistance.

(Source: US Census Bureau Profile of General Demographic Characteristics of Kitsap County Census Tract 810)

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Selected Population Characteristics	Census Tract		Washington State
	810	Bremerton	
% Minority Population	25	25	22
% Population Under Age of 5	6	8	7
% Population Under Age of 18	24	25	26
% Residents Women of Child-Bearing Age (15-44)	26	25	24
% Households Led by Single Mothers	15	15	11
% Residents with a Bachelor's Degree	8	15	28
% Residents Below Poverty Level	27	19	11
% Residents Reporting Disability	34	22	14

(Source: 2000 U.S. Census)

The harmful effect that these brownfield sites have on the population of Bremerton and the targeted community cannot be overstated. Despite significant success with the City's brownfields identification program, difficult sites such as the former landfill at Periwinkle Park still remain, depressing entire neighborhoods. These brownfield sites impact the targeted community in several ways. First, they are a blighting influence. In September 2003, the City amended its Community Renewal Plan to incorporate the Bay Vista site as a "blighted" area for purposes of community renewal. The designation was supported by findings that the site was isolated from adjacent areas that building size and design were deficient, and that physical deterioration was a contributing factor to disinvestment in the area. These actions also reaffirmed the City's intent to cooperate and assist the BHA in the redevelopment of the site, and to provide a framework for redevelopment in the Comprehensive Plan and zoning regulations. Second, these sites are often abandoned, and thus they cost taxpayer money to maintain, and they are not generating the taxes they should be contributing. Finally, the contamination on these sites is a potential environmental threat to neighbors on adjacent properties, and to the community and city as a whole. Along with the harmful effects that these brownfields have cumulatively on the population of Bremerton and the targeted community of Bay Vista, they also lend themselves to a substantial contribution to a negative synergy of disinvestment causing those that can afford to relocate to flee from the community, resulting in a shrinking tax base and the disappearance of quality goods, services, and employment opportunities. These blighted areas are an eyesore to the community and degrade both the individual and community spirit of the residents living amidst such deterioration. However, these sites also represent an untapped opportunity for increased services, improved quality of life, and additional jobs.

b. Financial Need

The target area is one of the most impoverished in the Puget Sound region, where 26 percent of residents are minorities, and 19 percent live below the poverty level. The Bay

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Vista neighborhood contained the highest percentage of families living in poverty in Kitsap County; the poverty rate is 57% in two-parent households while much higher 85-100% ⁽¹⁾ if no husband is present in female households with children, in this block group compared to the County-wide average of only 9%. The poverty rate here was therefore 5 times that of the County. This income discrepancy represents a chronic problem, but underlines Bay Vista’s potential for revitalization.

Sensitive population statistics for the U.S., Washington State, Kitsap County and the City of Bremerton, and are provided in the tables below.

	U.S.	Washington	Kitsap County	Bremerton	Census Tr.810
Population	312,569,711	6,724,540	251,133	37,729	1339
Unemployment	9.0%	9.1%	7.5%	7.6%	10.4
Poverty Rate:	15.1%	12.3%	8.4%	19.4%	30.8
Percent Minority:	27.6%	19.6	18.2%	26.5%	4.9
Per Capita Income:	\$27,041	\$41,751	\$22,317	\$22,792	16,462

(Source: US Census Bureau)

The following statistics were compiled from intake information from the BHA database: At least 30% of the Bay Vista residents did not have a high school diploma, compared to 13.4% of the Kitsap County population. ^{1b}

Families with two parents report wages averaging \$16,781 per year, while in comparison; single-parent families’ incomes average only \$9,488 per year. 73% of the Bay Vista population was unemployed.

More than 35% of Bay Vista families were headed by single parents. The community surrounding Bay Vista enjoys a slightly higher than average income, as “Kitsap County’s

Median Household Income is 5% more than state average. . . .³ However, Bay Vista’s average annual income was just \$9,393. The state’s unemployment rate has increased in the last few years from 4.5% to 9.1%; ⁴ and the unemployment rate in Bay Vista was 73%. Without badly needed jobs and expanded support services, the Bay Vista population will find it overwhelmingly difficult to become gainfully employed.

Nearby downtown is a designated economic empowerment zone; blight area defined by state statutes and city ordinances. Markers of economic disadvantages were seen in seasonal employment, scarce job opportunities, closure of timber industries, dramatic loss of private businesses and retail stores, increase in non-owner-occupied residences, and lack of new investments that contributed to these conditions.

¹ 2000 U.S. Census SF3 TM-P071 and TM-P069

^{1b} Western Washington University, Demographic Research Laboratory/June 29, 2004

³ Washington State Office of Financial Management, *Population Trends Report and Estimates by County*, September 30, 2006

⁴ Bureau of Labor Statistics and Washington State Labor Market & Economic Analysis

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BHA has not received an EPA brownfields grant in the past. The assessment activities performed to date that resulted in the Phase 1 and Phase 2 ESA were performed at the expense of BHA as part of the overall HUD HOPE VI grant and revitalization process.

BHA is unable to draw on the secured funding sources for the cleanup as these funds did not anticipate the need for methane gas removal in the Periwinkle Park site. As these funds are not anticipated to be available to cover the entire cost of the remediation at this site, the EPA grant funds are essential. Potential funding sources from the City and County would not qualify for the landfill gas remediation program. For the Periwinkle Park development, costs that were budgeted for this area that are covered by existing project funding sources included the environmental work done to generate the landfill reports that characterized the elements present in the landfill, installation of monitoring wells, monitoring of those wells, and the filling of the depressed area of the landfill to further the land cap over the landfill to final grade.

2. Project Description and Feasibility of Success

a. Project Description

The project involves the installation of a methane gas extraction system once the park area is brought to final grade as planned for the Periwinkle Park area. The proposed revitalization project will improve a low-income neighborhood through the construction of affordable housing, while providing availability, proximity, and accessibility of essential community services to city residents.

The subject landfill is located on the east edge of the Bay Vista Community, approximately 900 feet south on the intersection of Kitsap Way with Oyster Bay Drive, and is on the west side of Oyster Bay Drive. (See attachment D1). Periwinkle Park is an integral part of the Bay Vista project and represents a valuable recreational (active/passive) opportunity adjacent to affordable housing for the poorest, most disadvantaged people in the county.

The property has been owned exclusively by BHA since October 31, 1940. The Phase I and Phase II ESA report that the site was naturally vegetated prior to its use as a landfill by the City of Bremerton in 1930. Disposal of waste at the Bay Vista Landfill is estimated to have occurred in the 1930s and 1940s. When the landfill closed, the domestic waste was covered with fill soils. Landau Associates performed the initial landfill characterization in 2007 and determined the landfill is approximately 30 feet deep. The landfill is located in a glacial depression and there is approximately seven feet of native peat and alluvial soil below the waste. The depth of the waste below ground varied from 8.5 feet to 20.5 feet. The landfill is estimated to contain between 60,000 and 90,000 cubic yards of waste. Like most landfills during this period, there were no environmental controls or regulations for this landfill. The landfill site was capped with soil and later used as a baseball field and eventually becomes a neighborhood park as part of the Bay Vista Redevelopment Project. Up until we commissioned the landfill investigation in 2006, there was no clean up undertaken. Methane gas detected as part of the Phase II ESA was determined to be confined to just the landfill area only and gas production had ceased over two decades prior to the report. However, the gas remains in

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stasis, trapped in the ground and must be forced out of the ground through the proposed mitigation of extraction, the preferred method as approved by the Health District, in conjunction with other engineering and institutional controls.

GAS CONTROL OBJECTIVES

The site characteristics, assessment of landfill gas conditions, and proposed development dictate the need for gas control and building mitigation for methane. Landfill gas source control and mitigation measures at the Bay Vista Landfill will achieve the following objectives:

- Ensure that landfill gas does not migrate beyond (outside) the landfill boundary and that there are no surface emissions.
- Recover gas which has migrated into soils surrounding the landfill that could affect the Bay Vista Redevelopment Project construction.
- Reduce gas concentrations in soils to a level below the lower explosive limit of methane (i.e., less than 5 percent by volume).
- Provide monitoring and reporting of the performance of both source control and mitigation systems.
- Provide a means for verifying landfill gas migration in soils near developed structures remains within acceptable regulatory and safety limits.

To accomplish the objectives outlined above, the installation of an active gas control/mitigation system is recommended. The applicant and the regulatory authority (Kitsap Health District) believe the best approach to subsurface migration of landfill gas is to install an active gas control system with vertical gas extraction wells.

Proposed cleanup activities will be protective of human health and the environment. Cleanup activity will comply with all applicable state standards. A site-specific Sampling and Quality Assurance Plan (SQAP) and Site Health and Safety Plan (SHSP) may be prepared taking into consideration potentially sensitive populations (e.g. small children, pregnant women, infirm, etc.) that could be at risk during extraction activities, and approved by EPA before the sampling. The BHA will also task the contractor to prepare and follow an OSHA-compliant Health and Safety Plan.

Engineering controls in the form of monitoring wells will also be maintained. Adherence to safety and health precautions in approved plans will reduce threats to human health, the environment, and ensure compliance with all applicable state *and* federal laws. Continued monitoring for the presence of methane gas will be ongoing for at least 1 year after the extraction system concluded that all the gas has been removed. As the developed park will be owned and operated by BHA, the risk for engineering control violations is reduced, if not altogether eliminated.

Institutional controls such as planned restrictions on buildings in the form of a deed notice attached to the deed of the property in perpetuity restricting construction over the landfill area, and deed restrictions will attach to the lots within 200 feet of the landfill limits, unless the methane gas extraction program is implemented and concluded successfully.

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b. Budget for EPA Funding

i) Table of Tasks

Budget Categories	Task 1 - Project Management	Task 2 - Installation of Equipment	Task 3 - Reporting & Coordination		Total
Equipment		180,000 (Engineering Estimate)			180,000
Contractual (Subcontractors; Engineering, Analytical)	10,000 (Engineering Estimate)		10,000 (Engineering Estimate)		20,000
EPA Total	10,000	180,000	10,000		200,000
Cost Share	40,000				40,000
Total Charges	50,000	180,000	10,000		240,000

Task 1- Project Management BHA staff will assemble the mitigation team through the public procurement process utilizing the approved mitigation plan as a component in the scope of work. This will result in BHA contracting with and competitively procuring a qualified environmental engineering firm to provide on-site coordinator services and to prepare all requisite regulatory documents and reports associated with the installation of the extraction equipment and gas measurement results. Estimated hourly rates are \$160 per hour for 62 hours.

Task 2 - Installation of Equipment BHA will competitively procure equipment and contractors who will assist in the installation of infrastructure. All contracting will be conducted in accordance with applicable federal, state, and local procurement requirements. Installation costs are based on estimates provided by SCS Engineers, the mitigation plan authors.

Task 3 - Reporting & Coordination BHA will perform project management as required to implement and manage this project under the cooperative agreement including all required reporting and contractor procurement. BHA will use grant funds to hire a contractor to prepare a report on the findings of the sampling of the gas monitoring wells. Any funds necessary for extended reporting will be provided by BHA. Estimated hourly rates are \$160 per hour for 62 hours.

Using grant funds, the consultant's will perform those activities necessary to manage the project in accordance with the work plan and all required statutes, circulars, terms & conditions, including establishment and maintenance of requisite cooperative agreement records and files; financial management, project oversight, and necessary project or public meetings.

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BHA's staff will prepare and submit progress, financial and MBE/WBE reports. Technical analysis and progress reporting will be performed by the contracted Environmental Consultant.

ii) Tracking and Measuring Progress. Progress will be measured by monitoring the gas wells placed throughout the landfill area. It is anticipated that the extraction program could render the entire site methane gas free within 12 months.

The **OUTPUTS** include: lifting of restrictions to building imposed by the methane gas setback, the generation of (SQAP, HAP, etc.) bid documents and at least quarterly reporting (or as directed by EPA) on the results of the progress from installation of the equipment to gas measurement. The program will be gauged as successful when the gas monitoring wells evidence no remaining gas in the soil horizons. As the landfill had stopped producing methane gases over two decades ago, this will forever remove the contaminant. We will continue to monitor and report program progress regularly through ACRES along with the previously noted quarterly reports.

The **OUTCOMES** include the end result of a remediated landfill free of methane gas and available to the community for open space, recreation, or other uses as designed by the community. Funds leveraged for the cleanup of the site, temporary cleanup and construction jobs created, 33 affordable residences can go forward, 5 acres of park remediated, and an increase in tax revenues.

We will continue to monitor these measures as the monitoring wells will remain to allow follow-up monitoring after the program has concluded.

iii) Leveraging. BHA will draw on capital funds and has leveraging opportunities through the HOPE VI grant, Tax Credits, and other funding sources to address the requirements of the Bay Vista revitalization project. Specific funds are budgeted from the overall sources for the filling required in Periwinkle Park. The EPA grant will be applied to the shortfall associated with the introduction of the methane gas extraction system. BHA's cost share portion (\$40,000) will come from fungible leveraged local funds. A significant portion of the financial resources for the Bay Vista revitalization project to date have been grants and loans from state and federal entities. These resources include the previously noted HOPE VI grant funds, 9% Low Income Housing Tax Credits (LIHTC) partnership payments or Tax Credit Assistance Payments (TCAP), Washington State Department of Commerce - Housing Trust Funds (HTF), American Recovery and Reinvestment Act (ARRA) funds (both competitive and formula distribution funds), and other resources, such as CDBG. BHA has been successful in leveraging funds to complete the revitalization plan for Bay Vista. Our excellent reputation developed with funding agencies ensures that funding will be available for additional projects in the future.

The Table noted in item ii) c below demonstrates the significant assistance grants associated with the overall Bay Vista redevelopment program. The development of Periwinkle Park is a budgeted item in this mix of funds. The EPA grant is targeted to address the budget shortfall associated with the introduction of the methane gas extraction equipment and a portion of the required reporting.

c. Programmatic Capability and Past Performance

i) Programmatic Capability

BHA currently has staff that has managed approximately 16 million dollars of technical analysis and construction in the Bay Vista Community. The BHA's Housing Development Director Nancy Austin, Project Manager Mike Brown, Finance Director Laura Lyons, and department administrative staff have ample expertise in managing the grants that the agencies receive including federal, state and local grants. The activity associated with the instant grant is quite similar in scope and complexity as the projects funded below under ii). The BHA regularly manages contracts with contractors, consultants and services. The BHA will initiate a competitive bid procurement process and employ other internal policies already in place to select qualified technical and contractual services for the proposed project. The BHA has well established financial, managerial, and administrative resources to manage this grant if awarded. The selection and procurement of required contractors will be carried out in accord with the BHA's procurement procedures and BHA will use a competitive procurement process to acquire technical contractual services to plan, design, and carry out assessment and cleanup plans. Consultants and Contractors will be selected in accordance with 40 CFR 31.36. An example of our current procurements can be found at <http://bremertonhousing.org/>.

The use of a qualified environmental engineering firm to provide on-site coordinator services and to prepare all requisite regulatory documents and reports along with the BHA project manager will provide for protection for any staff turnover, as the institutional knowledge and skills have a built-in redundancy with the BHA project manager and the private environmental firm serving as back-ups for each other in the event of a personnel change. BHA has many years of extensive experience in hiring qualified firms to provide actual site work and contaminant remediation, and in hiring consultants to supplement the project management capabilities of in-house staff. In addition to the brownfields project manager, BHA has a finance department that manages the accounting, and a purchasing department that ensures the procurements are done properly. BHA continues to retain the environmental consulting team that was secured through the public procurement process for the global revitalization program, and they have been instrumental in bringing the landfill mitigation plan into fruition.

ii) Past Performance

While earlier in the narrative mention was made of an EPA Assessment Grant awarded to inventory brownfields which included the target community, this grant was awarded to Kitsap County as a community wide grant. BHA has never received an EPA Brownfields Grant. Our core business operations require careful and appropriate administration of grants and loans to ensure compliance with all appropriate regulations and requirements. All grant and funding assistance agreement expenditures as well as overall program compliance are subjected to annual audits by the Washington State Auditor's Office and HUD annually conducts audits of their grant programs as well. BHA has a long history of successfully managing such agreements and has been the recipient of continued funding as a result, including competitive funding where experience and prior history of successful grant administration is taken into consideration. BHA is more than qualified

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and able to administer future grant funds in accordance with all regulatory and programmatic requirements.

BHA owns, operates and maintains a 21 unit public housing project (Tara Heights) and until recently another 582 unit public housing project at Bay Vista. In 2008 BHA applied for and was awarded a \$20 million HOPE VI grant from HUD to revitalize the 83 acre public housing development at Bay Vista creating a new mixed-income, mixed-use community called Bay Vista. The grant time period covers September of 2008 through September of 2013. Compliance with the grant requires quarterly reporting to HUD through their GMS reporting system on expenditures made, required milestones achieved, and project narratives explaining the work completed each quarter. BHA has timely submitted accurate quarterly reports since the inception of the grant and has met the timelines and commitments specified in the approved revitalization plan to date.

A significant portion of the financial resources for the Bay Vista revitalization project to date have been grants and loans from state and federal entities. These resources include the previously noted HOPE VI grant funds, 9% Low Income Housing Tax Credits (LIHTC) partnership payments or Tax Credit Assistance Payments (TCAP), Washington State Department of Commerce - Housing Trust Funds (HTF), American Recovery and Reinvestment Act (ARRA) funds (both competitive and formula distribution funds), and other resources. Each of these grants and funding sources requires careful grant administration and compliance. In addition, BHA is subject to a monthly review by an asset manager appointed by the State or by the construction loan lender for the project phase when there is LIHTC partnership or TCAP funding involved. The asset manager reviews project documentation and expenditures and conducts periodic on-site reviews.

To date, BHA has successfully completed an 83 unit apartment complex as the first phase of this redevelopment. This 4-story single building structure was funded with HOPE VI funds (\$1.079 million), TCAP funds (\$12.477 million), competitive ARRA funds (\$2.1 million competitive capital fund program funds through HUD), HTF funds (0.271 million) and reinvested developer fee from BHA (\$1.510 million). Final cost certifications are being reviewed and certified by an external auditing firm and once received the will be submitted to the Washington State Housing Finance Commission (WSHFC) along with all final closing package documentation as required by WSHFC. All tax credit reservation and credit carryover requirements to date have been met on this project. All quarterly ARRA reporting has been completed both timely and accurately in the government's Federalreporting.gov system as well as HUDS ARRA tracking system – RAMPS. This project has met all reporting and compliance requirements, finished more than a month ahead of schedule, and came in under budget by more than \$2.1 million.

The second phase of the redevelopment project is Bay Vista South – 68 units of affordable housing in 19 building structures. This project is nearing completion with the first buildings completed and in lease up and the remainder to be completed prior to December 31, 2011. This project is funded with LIHTC investor equity, HOPE VI funds, ARRA capital funds (formula distribution), and funds provided by BHA. All tax credit reservation and credit carryover requirements to date have been met on this project. All

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quarterly ARRA reporting has been completed both timely and accurately in the government’s Federalreporting.gov system as well as HUDS ARRA tracking system - RAMPS. This project has met all reporting and compliance requirements to date and is on track to be completed on schedule and under budget.

A summary of some of the significant assistance grants discussed above recently received and successfully administered by BHA is as follows:

Grant/Assistance	Awarded	Amount	ARRA Compliance Reports Required and Submitted	HUD Compliance Reports Required and Submitted	Last Audited by State Auditors (report date)
HOPE VI	09/2008	\$20,000,000	N/A	Yes	June 2011
TCAP	02/2010	\$12,844,510	Yes	N/A	June 2011
HTF	02/2010	\$287,444	N/A	N/A	June 2011
ARRA (Capital Fund Recovery Competition Grant)	09/2009	\$2,100,000	Yes	Yes	June 2011
ARRA (Capital Fund Recovery formula distribution grant)	09/2009	\$1,457,591	Yes	Yes	June 2011

All of these grants are audited by our State Audit Process every Fiscal Year - all have clean audit opinions with no findings.

3. Community Engagement and Partnerships

a. Plan for involving the affected community. The BHA recognizes the benefits provided by education and outreach activities. BHA has been engaging the community for years with regard to the proposed Periwinkle Park and will continue to do so as this park and its relationship to Bay Vista is truly a part of a community-driven redevelopment project. BHA has CSS staff members that also provide outreach for the social elements of the Bay Vista revitalization program. A wide variety of stakeholders have already been involved in the planning of the Bay Vista project. BHA will continue to involve and request input from the community, City, Kitsap County, community groups, the Suquamish Tribal Council, local businesses and citizens during the subsequent phased remediation and redevelopment process. The BHA will also keep the community informed and involved in the assessment process by providing updates to the City Council, local neighborhood meetings, and Tribal Council as well as to continue its outreach efforts. Project information will be distributed through Bremerton City Council and committee meetings, Town Hall Meetings, Public Announcements in the Kitsap Sun newspaper, Kitsap Business Journal, Bremerton Patriot, and placement of informative

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brochures at public gathering places including the BHA office, the YWCA Community Center, Bremerton Post Office, Health District, and Public Library. Upon request or identified need, information will be provided in Chinese, Japanese, Spanish or First Nation Tribes to reach affected persons. The BHA would also elicit assistance from their community resources (Kitsap Community Resources, YWCA, Hospital, local Health District, etc.) to resolve other language and/or anticipated communication barriers (e.g. sight or hearing impairments, etc.).

The ultimate use as a playfield and greenspace will benefit the vision for the Community as expressed by the stakeholders, architects, and planners that participated in the planning charretts which occurred prior to the adoption of the Bay Vista Sub Area Plan by the City of Bremerton. The residents will get to influence the eventual use (i.e., play field, passive/active park). The BHA has fostered partnerships among all of these groups to maximize common interests and leverage future funding opportunities. The project will continue to be featured in news releases and websites and our media partners have committed to regular posts. The project progress and opportunities for public participation and education will be publicly announced through press releases emailed to media partners, local civic and community groups, placed on the BHA website, and, if requested, by US mail. The BHA continues to attend other local forums as well.

BHA has hosted numerous community meetings over the last 4 years as part of the redevelopment process for the entire Bay Vista site. The most affected community organization is the Bay Vista/Tara Heights Resident Council. We report regularly to them on the development. Additionally there is a Community Task Force that meets quarterly for development updates. The newly formed Bay Vista Community Association will also be a key player as we make regular reports to them. We have a website - www.bayvistacommunity.com that is updated regularly with progress on the site and this clean up would be included. Additionally, BHA as the owner does a monthly newsletter updating the redevelopment which would be used to communicate with the affected community.

b. Partnerships. We have a good working relationship with the local Kitsap County Health District, the City of Bremerton, Federal EPA, Washington State Department of Ecology, and have been working with through them to resolve our landfill issues. All reports and monitoring results will be provided to the Health District to ensure that they are informed of the site status. All work will be done in conformance with the most current health standards. Concerning employment opportunities for EPA Workforce Development trainees, there are no local environmental job training programs, however, BHA has adopted a Section 3 hiring policy as part of our relationship with HUD. All public procurement bid documents will require contractors comply with the BHA Section 3 hiring program. Past residents and current clients of BHA are given top priority for this hiring program. All work will be subject to the payment of Davis-Bacon wages and compliance reporting.

c. Community based organizations.

Collaboration between a wide array of groups, organizations, and local residents has been very positive and encouraging. These supporters have embraced the goal for

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redevelopment, sustainable economic growth, affordable housing, environmental benefits, and quality of life.

The following will play a continuing key role in the successful development and implementation of the EPA Cleanup Grant:

- **Bay Vista/Tara Heights Resident Advisory Council** - represents the tenants in the affordable rental unit community. Some of these units will be within the affected landfill setback and all residents will be potential users of Periwinkle Park. For the cleanup project, the Resident Council will continue to actively engage the residents and assist in providing outreach and as a source of input on the ultimate improvements for Periwinkle Park including the design and development of the final park uses. The design is expected to begin in 2012.
- **Bay Vista Community Association** - Homeowners association responsible for the use and finishes at Periwinkle Park. The Community Association will continue to work with the growing community to provide information on ongoing brownfield work at Periwinkle Park.
- **Habitat for Humanity** - providing affordable homeownership to individuals who will use the park area. Habitat for Humanity will collaborate with the Community to give direction to the ultimate improvements and uses at Periwinkle Park.
- **Bay Vista HOPE VI Community Task Force** - this is a task force made up of several community groups to provide feedback and to keep informed of our progress on the development of Bay Vista. The Task Force will continue to provide input into the ultimate form and uses at Periwinkle Park.

4. Project Benefits

a. Welfare and/or Public Health: Use of the cleanup grant funds would immensely benefit the community first by the removal of the methane gas from the landfill site, which will provide a safe, clean environment free of the stigma of methane gas contamination, which places affordable housing at risk with the imposition of the required placement of a methane gas building mitigation system in each residence within 200 feet of the landfill limits (See Attachment E). It will help reduce the health impacts to sensitive populations such as young mothers and people with disabilities. Recycling viable properties using existing infrastructure will directly and indirectly reduce resource consumption, protect undeveloped open space from development and prevent sprawl. The reuse of this past landfill/playfield enhances the general well-being of the residents of the community and does not displace residents. In fact, it supports existing residents and benefits lower income residents by accommodating the construction of affordable housing and open space. It will also help remove the stigma associated with living and encourage investment of resources in this neighborhood.

Bremerton Housing Authority – Bay Vista Landfill Methane Gas Mitigation
Application for EPA Brownfields Cleanup Grant – November 2011

As the contaminant is isolated and confined to the landfill area, no nearby populations will be affected by the mitigation process. Once the gas has been removed, the residents in close proximity to the landfill will be free from the threat imposed by the methane gas that is trapped in the ground above the landfill. In order to ensure the safety of the adjacent populations, the landfill area will be signed and fenced when the mitigation program begins to prevent unauthorized access to the landfill area. Removal of the trapped methane gas will allow the introduction of more affordable housing and will allow the movement away from this as another abandoned site, enhancing the community well-being and providing a sense of community that provides affordable housing and clean open space along with both active and passive outdoor activities to those least able to find them. Populations displaced by the blighted conditions that have attached to the target community can begin to return as this and other area brownfields are remedied.

b. Economic Benefits and/or Greenspace: The economic benefits will be immediately felt by the removal of the individual building gas mitigation system required absent the mitigation program going forward. This cost, estimated to be between \$10,000 and \$20,000 per building (varies by building size) will greatly advance the affordable housing goals of Bay Vista. The total anticipated savings from installation, maintenance, and operations are estimated to be \$700,000.00. (*Estimate based on actual bids received for one building*). All savings will be used by BHA for the development and maintenance of affordable housing in the target area.

Other economic benefits that result are associated with the temporary cleanup and redevelopment jobs created, and the quality, affordable housing that will occur with the award of the grant. This will also lead to an increase in the neighborhood density and stability, thus improving the local economy. All these benefits accrue to the targeted community and add to the tax base, open space creation/retention, and increased property values. The 39 future lots immediately impacted by the methane gas restriction are currently owned by BHA and generate no tax revenue. Upon redevelopment as 39 affordable residential units, new tax revenue will be generated.

Non-economic benefits stemming from the remediation and redevelopment include the ultimate use of Periwinkle Park as a playfield and greenspace. This will benefit the vision for the Community as expressed by the stakeholders that participated in the planning charretts which occurred prior to the adoption of the Bay Vista Sub Area Plan by the City of Bremerton. The residents will get to influence the eventual use (i.e., play field, passive/active park) and appearance (landscape, art, gardens). The Periwinkle Park element of the Bay Vista Sub Area Plan is recognized as a key for improving the quality of life to attract new residences. The Park is vital to the Bay Vista system of interconnected parks and greenways that connect all of Bay Vista. The inclusion of affordable, quality housing in close proximity to the Periwinkle Park open space is a vital part of the livability principals noted in the Community Character Goals of the Sub Area Plan.

c. Environmental Benefits: Since 2009, BHA and the city of Bremerton have encouraged the incorporation of sustainable building practices as provided in the International Green Construction Code. Beyond the remediation of contaminants at

Bremerton Housing Authority – Bay Vista Landfill Methane Gas Mitigation
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Periwinkle Park, other anticipated environmental benefits would include the use of “Low Impact Development” (LID) strategies that incorporate sustainable systems, water reuse/conservation, and reduce stormwater runoff. Also, as part of this landfill mitigation and associated projects, the BHA is using “deconstruction” demolition techniques. We anticipate that 35,451 tons of material will be recycled and only 2,459 tons will go into the landfill. Concrete roads, sidewalks, curbs, and the foundations of 571 residential units will be crushed and reused as storage course ballast in the new pervious asphalt streets to function as stormwater storage and treatment in conjunction with global LID applications. Storm water will be directed to infiltration as opposed to surface discharge, where possible.

The Bay Vista community has adopted the use of green remediation principles. The Bay Vista redevelopment will provide improvements by reducing pollution and impacts to the environment in addition to pollution control technologies and promotion of green building in homes/facilities. The completion of the Periwinkle Park mitigation is a key element in the community plan, which encourages public access. In addition, planned native landscaping will provide clear benefits to water conservation, require less herbicides and pesticides, and result in overall reductions in pollution and resource consumption. The development guidelines contained within the Sub Area Plan will encourage the LID techniques as well as the use of recycled materials, providing structures that are more energy efficient, have health benefits, and promote sustainable construction practices.

THRESHOLD CRITERIA FOR CLEANUP GRANTS

1. Applicant Eligibility

- a. Eligible Entity:** Housing Authority of the City of Bremerton (aka BHA), a body corporate and politic of the State of Washington, a municipal corporation, an agent of a general purpose of a local government entity. (See Attachment A Eligible Entity).
- b. Site Ownership:** BHA took fee simple title to the property on October 31, 1940 from the City of Bremerton and remains the sole owner. (See Attachment B Deed).

2. Letter from the State Environmental Authority

The Kitsap County Health District is the environmental authority in Washington State for issues associated with landfills in Kitsap County. BHA and its environmental consultants have worked closely with the Health District and State representatives to develop the formal mitigation plan which has been approved by the Health District. (See Attachment C).

3. Site Eligibility and Property Ownership Eligibility

Site Eligibility

- a. Basic Site Information.** The subject landfill is located on the east edge of the Bay Vista Community, approximately 900 feet south on the intersection of Kitsap Way with Oyster Bay Drive, and is on the west side of Oyster Bay Dr. See Attachment D and D₁. The property has been owned exclusively by BHA since October 31, 1940.
- b. Status and History of Contamination at the Site.** The Phase I and Phase II ESA report that the site was naturally vegetated prior to its use as a landfill by the City of Bremerton in 1930. Disposal of waste at the Bay Vista Landfill is estimated to have occurred in the 1930s and 1940s. When the landfill closed, the domestic waste was covered with fill soils. Landau Associates performed the initial landfill characterization and determined the landfill is approximately 30 feet deep. The landfill is located in a glacial depression and there is approximately seven feet of native peat and alluvial soil below the waste. In 2009, Associated Earth Sciences, Incorporated (AESI) conducted additional investigations including eight exploration pits and eight exploration borings to provide more information about the landfill. The depth of the waste below ground varied from 8.5 feet to 20.5 feet. The landfill is estimated to contain between 60,000 and 90,000 cubic yards of waste. Like most landfills during this period, there were no environmental controls or regulations for this landfill. The landfill site was later used as a baseball field and will eventually become Periwinkle Park, a neighborhood park as part of the Bay Vista Redevelopment Project. Methane gas detected as part of the Phase II ESA were determined to be confined to the landfill area only and gas production has ceased. The landfill occupies approximately 3 acres on the west side of the property.
- c. Sites Ineligible for Funding.** BHA affirms that that the site is (a) not listed or proposed for listing on the National Priorities List; (b) not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent

Bremerton Housing Authority – Bay Vista Landfill Methane Gas Mitigation
Application for EPA Brownfields Cleanup Grant – November 2011

decrees issued to or entered into by parties under CERCLA; and (c) not subject to the jurisdiction, custody, or control of the United States government.

d. Sites Requiring a Property-Specific Determination. The subject property does not meet any of the elements listed in Appendix 1, Section 1.5 nor in Section III.B.2. of the Guidelines (Property-Specific Determination for Eligibility) and it is not expected that a property specific determination will be necessary.

e. Environmental Assessment Required for Cleanup Proposals. Both a Phase I and a Phase II ESA have been performed for the subject landfill. A mitigation plan was subsequently prepared and has been adopted as the approved method for remediation by the lead environmental agency.

Property Ownership Eligibility

f. CERCLA 107 Liability. BHA affirms that that it is not potentially liable for contamination at the site under CERCLA §107 (e.g., as a current owner or operator of a facility, an owner or operator of a facility at the time of disposal of a hazardous substance, a party that arranged for the treatment or disposal of hazardous substances, or a party that accepted hazardous substances for transport to disposal or treatment facilities at the site). We make this affirmation pursuant to the eligibility criteria set forth under the liability protection afforded a bona fide prospective purchaser protection.

g. Enforcement Actions. There are no known ongoing or anticipated environmental enforcement actions related to the brownfield site for which funding is sought. There have been no inquiries or orders from federal, state, or local government entities that the applicant is aware of regarding the responsibility of any party (including the applicant) for the contamination or hazardous substances at the site.

h. Information on Liability and Defense/Protections.

i) Information on the Property Acquisition. The BHA acquired ownership of the property by fee simple deed from the City of Bremerton on October 31, 1940. BHA has had no familial, contractual, corporate, or financial relationships or affiliations and does not have or have had with any and all prior owners or operators (or other potentially responsible parties) of the property (including the City of Bremerton, from which BHA acquired the property).

ii) Timing and/or Contribution Toward Hazardous Substances Disposal. All disposal of hazardous substances at the site occurred before BHA acquired the property and BHA did not cause or contribute to any release of hazardous substances at the site. BHA affirms that BHA has not, at any time, arranged for the disposal of hazardous substances at the site or transported hazardous substances to the site.

iii) Pre-Purchase Inquiry. The Housing Authority of the City of Bremerton acquired the property from the City of Bremerton in 1940. Given that the transaction occurred seventy years ago, we do not have any documentation regarding the transaction, other than the Deed and Title Report. Further, the parties that would have information about what occurred are no longer living or available. The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") was not enacted until 1980, forty years subsequent to the transaction. The environmental due diligence standards that have

Bremerton Housing Authority – Bay Vista Landfill Methane Gas Mitigation
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developed since that time, including all appropriate inquiry, were not known at the time. Additionally, the local Health District advises that they had no regulatory oversight of the operation in 1940 and that the State did not have regulations for enforcement of landfills at the time. We presume that the only knowledge at the time of the transaction was that the property had been a municipal landfill. As stated in our application, the landfill was covered over and there was no evidence of methane until after the time that the Housing Authority acquired the property. Based on the limited knowledge in 1940, Housing Authority of the City of Bremerton was a bona fide purchaser.

iv) Post Acquisition Uses. In 1940 when BHA took possession of the property, methane gas generation had not begun until approximately one year thereafter, so there would have been no knowledge of methane gas prior to BHA taking title to the site. At the time of possession, the landfill was stabilized and capped with an earth overfill to prevent exposure to users of the playfield that existed at the time of acquisition by BHA.

Since acquisition by BHA, the landfill area has been utilized exclusively as a playfield until the beginning of the redevelopment of the Bay Vista with the award of a \$20,000,000 HUD HOPE VI grant in 2007. BHA has always had an on-going inspection and maintenance program for all the 83 acres, so no dumping occurred. The methane gas mitigation was not anticipated during the formulation of the Bay Vista project, and therefore, no funding was identified under the HOPE VI grant to effect the remediation of the landfill gas.

v) Continuing Obligations. BHA will continue to apply appropriate care to prevent the release or spread of methane gas in the landfill area. Specific steps include continuation of the fill/cap program over the landfill area; preventive measures to monitor gas levels with the ongoing measurements of existing monitoring wells in the landfill area; ultimately, remove all trapped methane through the process approved by the environmental authority for this property. BHA remains committed to complying with all land-use restrictions and institutional controls; as well as assisting and cooperating with those performing the cleanup and provide access to the property; comply with all information requests and administrative subpoenas that have or may be issued in connection with the property; and provide all legally required notices.

i. Petroleum Sites. The contamination at the site that is addressed in this application is hazardous substances, as such, this section is not applicable.

4. Cleanup Authority and Oversight Structure

a. The subject landfill is part of a larger redevelopment project: Bay Vista. Oversight of the cleanup at the site will be performed by the Kitsap Health District, which is authorized by State law to oversee methane cleanup at landfill sites. BHA will procure, through the competitive procurement provisions of 40 CFR 31.36, an engineering firm with expertise in methane gas monitoring to assist with the reporting required by the Health District.

b. Neighboring properties are owned by BHA and there is no expectation that access to other than BHA property will occur as part of the mitigation program.

5. Cost Share

BHA will contribute \$40,000 from its own capital funds as a cost sharing measure. These funds will be applied to the invoice billings from the environmental consultant providing

Bremerton Housing Authority – Bay Vista Landfill Methane Gas Mitigation
Application for EPA Brownfields Cleanup Grant – November 2011

project oversight and monitoring/reporting. No additional federal funds are being requested for this clean up program outside of the instant application. A hardship waiver for the cost share is not being requested.

6. Community Notification

BHA has provided community notification of its intent to for an EPA brownfields grant and request comments on the draft proposal and the Analysis of Brownfield Cleanup Alternatives (ABCA). BHA held a public meeting on November 16, 2011 to discuss the draft proposal and consider public comments. BHA placed a community notification ad in the local newspaper (Kitsap Sun) (copy found in Attachment E) as well as sending a global email notification to all Community Partners in the HOPE VI Revitalization Task Force. In addition, the applicant has provided a summary of the received comments and its response to those comments in the Attachments section of this application. The community notification ad clearly indicated that a copy of this grant proposal and ABCA are available for public review and comment and the draft proposal is located at the offices of BHA. While there were no comments, a transcript of the meeting is attached.

ATTACHMENT A

ELIGIBLE ENTITY

CERTIFICATE

BY THE MAYOR OF THE CITY OF BREMERTON

August 21, 1940

I HEREBY CERTIFY that I have been notified of the passage by the City Commission of the City of Bremerton, Washington, of a resolution on July 17, 1940, and a supplemental resolution on August 14, 1940, both relating to and declaring the need for a Housing Authority in the City of Bremerton, and that I have proceeded in accordance therewith, as more fully appears from the attached records.

/s/ HOMER R. JONES
Mayor

Attest:

[Signature]
City Clerk

RESOLUTION

A RESOLUTION relating to and declaring the need for a Housing Authority in the City of Bremerton.

WHEREAS, there is a shortage of safe and sanitary dwelling accommodations in the City of Bremerton available to persons of low income at rentals they can afford, and

WHEREAS, said shortage is primarily caused by influx of employees in the Puget Sound Navy Yard due to emergent needs for national defense, and

WHEREAS, the City Commission deems it desirable that any project or projects that may be developed pursuant to this resolution shall immediately revert to low rent housing projects and be subject to the provisions of "Sections 2, (1) and 2 (2) of the United States Housing Act of 1937" as soon as the emergency housing needs of the national defense program are over,

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF BREMERSTON, that based upon the above recital, which is hereby incorporated by reference as the findings of the City Commission of Bremerton, there is a need for the functioning of a Housing Authority in the City of Bremerton, as contemplated and created by the Housing Authority law in the 1939 Session Laws of the State of Washington.

PASSED by the City Commission of the City of Bremerton, signed by the Mayor, and attested by the City Clerk in authentication of such passage, this 17th day of July, 1940.

Homer R. Jones
HOMER R. JONES

Mayor

ATTEST:

E. J. Scall
City Clerk

Filed July _____ 1940.

RESOLUTION NO. ~~1000~~

A RESOLUTION amending and supplementing a Resolution passed by the City Commission of the City of Bremerton on the 17th day of July, 1940, and declaring the need for a Housing Authority in the City of Bremerton, Washington.

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF BREMER-
TTON, WASHINGTON:

That a certain resolution passed by the City Commission of the City of Bremerton on the 17th day of July, 1940, relating to and declaring a need for a Housing Authority in the City of Bremerton, be amended to read as follows:

That the City Commission of the City of Bremerton, Washington, hereby determines, finds and declares, in pursuance of the "Housing Authorities Law" of the State of Washington that:

1. Insanitary and unsafe inhabited dwelling accommodations exist in the city of Bremerton, Washington; and
2. There is a shortage of safe and sanitary dwelling accommodations in the City of Bremerton, Washington, available to persons of low income at rentals they can afford; and
3. There is need for a Housing Authority in the City of Bremerton, Washington; and
4. That the Mayor of the City of Bremerton, Washington, be promptly notified of the adoption of this resolution; and
5. That the said resolution passed on the 17th day of July, 1940, and every act or thing done in pursuance thereto, is hereby in all respects ratified and confirmed.

PASSED by the City Commission of the City of Bremerton, signed by the Mayor, and attested by the City Clerk in authentication of such passage, this 14th day of August, 1940.

ATTEST:

[Signature]
City Clerk

Norman P. Jones
Mayor

Filed August 15 1940.

ATTACHMENT B

DEED

D Nov 14 1940

Oct 31 1940 \$7500. \$8.25 IRS \$7.50 st
City of Brem, a municipal corp of Brem, kow
to Housing Authority of the City of Brem
Fp cys and wars to sp the fdre sit in kow:

The SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of sec 16 tp 24 NR 1 E W $\frac{1}{2}$, kc, and ALSO
lots 1 to 7, inc, Fernwood, as per plat recd in vol 4 of plats
on pg 89, records of kow

City of Brem
by Homer R Jones, Mayor
H A Bruenn, Commissioner of Finance
J C Casad, Commissioner of Public Works
Attest: E J McCall, City Clk

(city sl)

kow Oct 31 1940 by Homer R Jones, Mayor and H A Bruenn, Comm'r. of
Finance and J C Casad, Comm'r of Public Works, all of the City
of Brem, Mayor and Commissioners and E J McCall, City Clk of the
municipal corp of bf E H T McGowan np wn res at Brem
(MS Jun 8 1942) ml sp City Hall, Brem Wn

322900 $\frac{273}{552}$

D Nov 14 1940

Aug 31 1940 \$10.
Mort Doan and Eva Doan, hwf
to J W Bryan
Fp cy and war to sp the fdre sit in kow:

Lots 18 and 19 blk 31 Town of Kingston
Eva Doan
Mort Doan

Minor co So Dak Aug 31 1940 by Mort Doan & Eva Doan bf F L Probstrollo
np So Dak res at Redora (MS --) ml J W Bryan, Atty, Harrison Bldg,
Brem Wn

D Nov 14 1940

Nov 9 1940 \$10.
Charles W Monk and Margaret Monk, hd and wf res at Port Orchard, Wn
to May M Struckman
Fp cy and war to sp the fdre:

N $\frac{1}{2}$ of N $\frac{1}{2}$ of NE $\frac{1}{4}$ of SW $\frac{1}{4}$ Sec 9 tp 24 NR 2 E W $\frac{1}{2}$, consisting of 10
acres ml sitd in kow

Charles W Monk
Margaret Monk

kow Nov 9 1940 by Charles W Monk and Margaret Monk, hd and wf bf
F E Langer np wn res at Port Orchard (MS Sep 24 1941) ml sp 5704
N Atlantic Ave, Portland, Oregon

D Nov 14 1940

Apr 2 1940 \$1250. \$1.65 IRS \$1.50 st
James W Carr, a widower of Brem, kow
to Maurice L Wallis and Fulalia V Wallis, hwf
Fp cys and wars to sp the fdre sit in kow:

Lots or Pts 13 and 14 in blk 2 of the plat of Brentwood Park,
acc to the recd plat of
subject to any and all taxes due or to become due or owing
thereon since Nov 26 1939

James W Carr

kow Apr 2 1940 by James W Carr, a widower bf Ruth A Palmer np wn
res at Brem (MS Jun 19 1942) ml Ross Abst Co

322901 $\frac{273}{554}$

322902 $\frac{272}{553}$

322903 & 04 ng
322905

$\frac{273}{556}$

ATTACHMENT C

State and Local Authority



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

November 16, 2011

Ms. Deborah Burgess, Brownfields Coordinator
U.S. Environmental Protection Agency
Washington Operations
300 Desmond Drive, Suite 102
Lacey, WA 98503

Dear Ms. Burgess:

The Housing Authority of the City of Bremerton will submit an application for a Hazardous Waste Cleanup grant under the Environmental Protection Agency's (EPA) Fiscal Year 2011 Brownfields Program. For this application, the Department of Ecology (Ecology) is required to provide EPA with a letter acknowledging we are aware the applicant plans to conduct assessment activities.

Mr. Michael Brown, representing the Housing Authority, informed Ecology of plans to apply for these federal funds to conduct brownfield cleanup activities at the Bay Vista Landfill to enable the Property Reuse as public greenspace. Kitsap County Health is the regulatory authority per WAC 173.304 and WAC 173.350.

The Ecology point of contact for this project is Bob Warren of our Northwest Regional Office. His telephone number is (425) 649-7054.

Sincerely,

John Means
Brownfields Program Planner
Toxics Cleanup Program

Cc: Michael Brown, Bremerton Housing Authority
Bob Warren, Toxics Cleanup Program – Northwest Regional Office
Diane Singer, Waste 2 Resources – Headquarters
Jessica Brandt, Toxics Cleanup Program – Headquarters





SCOTT W. LINDQUIST, MD, MPH, DIRECTOR
345 6TH STREET, SUITE 300
BREMERTON, WA 98337-1866
(360) 337-5235

November 3, 2011

To The Attention Of The U.S. Environmental Protection Agency (USEPA)
Brownfield Program
c/o Bremerton Housing Authority

RE: BAY VISTA MIXED USE REDEVELOPMENT METHANE GAS REMEDIATION

To Whom It May Concern:

The Kitsap County Health District (KCHD) supports this proposal by the Bremerton Housing Authority (BHA) to implement the hazardous waste contamination removal on property it owns within the Bay Vista redevelopment in Bremerton.

It is important to maximize opportunities to recycle abandoned and idle land, remediate and mitigate impacts from contaminated sites, protect groundwater, enhance public awareness and leverage funding sources by coordinating multiple projects. This proposed plan to clean up the methane gas would improve the overall health and safety in the vicinity of the Bay Vista redevelopment area while helping to minimize adverse impacts to the environment.

This site is located in an economically distressed, gentrifies, and culturally diverse area of Bremerton. Improvements to this area will not only benefit existing citizens of Bremerton, but will also benefit future generations that live and work in the area.

The Health District applauds the efforts of the BHA for incorporating environmental improvement and mitigation as part of the community redevelopment and will continue to provide our support in whatever capacity we can.

Sincerely,

A handwritten signature in cursive script that reads 'Jan Brower'.

Jan Brower R.S.
Solid and Hazardous Waste Program Manager
Environmental Health Division
Kitsap County Health District



FISHERIES DEPARTMENT

Area Code (360)

394-5248

Fax 598-4666

THE SUQUAMISH TRIBE

P.O. Box 498

Suquamish, Washington 98392

November 14, 2011

TO: U.S. Environmental Protection Agency
c/o Mike Brown, Bremerton Housing Authority

RE: Bay Vista Landfill Methane Gas Remediation
Brownfield's Program 2012 Application for Cleanup

To whom this may concern:

The Suquamish Tribe supports this proposal by the Housing Authority of the City of Bremerton (BHA) to implement the extraction of potentially hazardous methane gas at its landfill site adjacent to Oyster Bay Drive in the Bay Vista community, where it plans to build housing in Bremerton.

The Tribe has worked closely with the BHA, local communities, Washington State Department of Fish and Wildlife, Department of Ecology and the City of Bremerton in recent collaborative efforts. The Tribe has an extensive history of restoration, land protection through conservation easements, restoration, and has been active in enhancing habitat protection for the benefit of fish and wildlife for many years.

It is important to maximize opportunities to recycle abandoned/idle land, remediate contaminated sites, protect groundwater, enhance public awareness, provide residential housing for low income persons and leverage funding sources. The Tribe advocates the BHA's plans to convert this idle land into a productive mix of low income housing types and open spaces using environmentally sensitive construction which incorporates low impact development and "built green" techniques.

This project has stakeholder support through a community based redevelopment plan that brings together Tribal, local government agencies, and the community as a team, which will have the far reaching potential to accomplish much more than a single entity.

The Suquamish Tribe supports the U.S. Environmental Protection Agency and the BHA in this important clean up effort.

Sincerely,

Rob Purser
Fisheries Director

ATTACHMENT D

Community-Based Organizations

Letters of Support



HOUSING AUTHORITY OF THE CITY OF BREMERTON

Resident Advisory Council

4650 Bay Vista Boulevard • Bremerton, Washington 98312 • Phone (360) 479-4600 • rachayvista@gmail.com

November 21, 2011

Lisa Jackson, Administrator
c/o Bremerton Housing Authority
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson:

Bay Vista/Tara Heights Resident Advisory Council represents individuals and families receiving housing assistance from the Bremerton Housing Authority. One of our objectives is to inform residents of activities that improve quality of life, promote education, economic stability and recreational opportunities for the residents including those activities that increase property beautification and improve relationships with management and the community.

I am writing on behalf of the Bay Vista/Tara Heights Resident Advisory Council for the Bremerton Housing Authority in full support of the grant request to remediate Periwinkle Park, located in the redeveloped Bay Vista Community in the City of Bremerton. We share the Bremerton Housing Authority's goal in cleaning up the affected land to facilitate the new Periwinkle Park for use by tenants residing in the redeveloped Bay Vista Community. For the cleanup project, the Resident Advisory Council will continue to actively engage the residents and assist in providing outreach and input on the ultimate improvements for Periwinkle Park, including the design and development of the final park uses.

Thank you for your consideration of the important application.

Sincerely,

Linda Hill
Resident Advisory Council Chairperson



Bay Vista Community Association

November 14, 2011

U.S. Environmental Protection Program
1200 Pennsylvania Avenue NW, Room 3426 ARN
Washington, D.C. 20460

RE: Bay Vista Landfill Methane Gas Remediation, Bremerton, Washington

To Whom It May Concern,

I am the President of the Bay Vista Community Owners Association (HOA) which was organized in 2010 pursuant to the Declaration of Covenants, Conditions, Restrictions, and Reservations (CC&R's) for Bay Vista Community. Part of the HOA's duties, through its Architectural Review Committee, is to ensure that all development proposals adhere to the planning and design standard provisions of the Bay Vista Sub Area Plan and meet relevant requirements of adopted design standards and any adopted CC&R's that apply to Bay Vista.

I am writing to support the Periwinkle Park methane gas mitigation and the BHA application for an EPA Brownfields Cleanup Grant to clean up the site. The park will become a vital part of the community envisioned open spaces within Bay Vista. We recognize the importance of cleaning up this former landfill to ensure safety as a future recreational area.

Absent the methane gas, the restrictive setback that affects so many potential residences will be removed bringing affordability back into the equation for the development of these lots adjacent to the Park. The Periwinkle Park project is paramount for the youth of Bay Vista, as it will represent the first new park constructed in the city in many years.

The HOA will be the responsible party for the creation and maintenance of the finished park. The grant is an important tool needed for the completion of Periwinkle Park and could have a strong positive impact on local residents and children in particular. We therefore strongly support this grant application.

Sincerely,

Nancy Rees Austin
President



November 18, 2011

Attention: Environmental Protection Agency- Brownfields Program
c/o Bremerton Housing Authority

OFFICE LOCATED:

FIRST CHRISTIAN CHURCH
811 VENETA, BREMERTON

MAILING:

P.O. BOX 5347
BREMERTON, WA
98312-0516
TELEPHONE: (360) 479-3853
FAX: (360) 479-2149

WEB PAGE:

www.kitsaphabitat.org

PRESIDENT

WALT WASHINGTON

VICE PRESIDENT

RONALD A LACEY JR.

SECRETARY

DOLORES GILMORE

TREASURER

SHELLY ARNOLD

BOARD OF DIRECTORS

Bill Doner

Mark H. Grimm

Thomas E. Moore

INTERIM

EXECUTIVE DIRECTOR:

TED TREANOR

director@kitsaphabitat.org

*Habitat for Humanity of Kitsap
County is a non-profit 501(c)(3)
Organization.*

Federal ID# 91-1981992

Building Houses Building Hope!



TTY 1-800-833-6388

Call for accessibility arrangement

RE: Bay Vista Landfill Methane Gas Remediation

To whom this may concern;

Habitat for Humanity is a community-based organization that was established in Kitsap County in 1992. The international organization was founded in 1976. Habitat for Humanity has been active in the Bay Vista Communities' stakeholders meetings and we are pleased that Habitat has six homes under development and three phase 1 homes under construction.

Habitat for Humanity is pleased to support the proposed EPA Brownfield's Environmental grant application by the Housing Authority of the City of Bremerton (BHA). This cleanup and site redevelopment is a vital step toward neighborhood revitalization, reuse, and economic development opportunities sorely needed in this community.

We are encouraged to see the framework for the community-based support on this approach to begin to address unmet needs for low-income affordable housing, economic development, and accessible open space. The diversified development planned for the Bay Vista Community will encompass these needs while recovering the neighborhood and providing opportunities for economic vitality. A clean healthy neighborhood is essential for the community to thrive.

Thank you for your efforts. Habitat for Humanity looks forward to your success.

Sincerely,

A handwritten signature in black ink that reads "Ted Trainer". The signature is fluid and cursive.

Ted Trainer
Executive Director

Partnering for Youth Achievement

Pastor Richmond A. Johnson, Branch Director
1906 13th Street - Bremerton, WA 98337
Telephone: (360) 373-2131 / E-mail: pya@telebyte.com

November 17, 2011

Lisa Jackson, Administrator
c/o Bremerton Housing Authority
U. S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Subject: Letter of Support for the Periwinkle Park Brownfields Grant
Bay Vista HOPE IV project – Bremerton, WA

Dear Administrator Jackson:

As a member of the Bay Vista HOPE VI Community Task Force (CTF), and as Pastor of Mt. Zion Missionary Baptist Church of Bremerton, and Branch Director for the non-profit Partnering for Youth Achievement program, I am writing this letter of support on behalf of those I represent.

The HOPE VI Community Task Force (CTF) was established in 2008 to provide community input into the HOPE VI revitalization project, meeting once quarterly. Along with providing input, the Task Force also exists for obtaining input from and sharing information about other community partners. The overarching goal of the CTF is to work within the neighborhood to develop and implement a revitalization plan which will improve the quality of life of neighborhood residents.

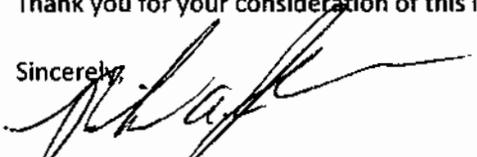
The CTF understands the value of cleaning up brownfield sites so that these under-utilized, blighted properties can be revitalized to productive uses.

As concerned citizens, we appreciate the Bremerton Housing Authority's Bay Vista /Periwinkle Park project, including the design and development of the final park uses. Our concerns relating to covering the landfill have been answered by the hazardous waste specialist(s) who reviewed the plans. As a result, we feel confident that federal laws and requirements have been met, and that the inspection and permit processes have been fulfilled.

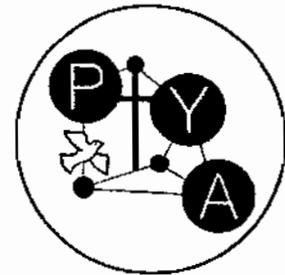
We will continue to be involved and work with the Bremerton Housing Authority (BHA) and the Bay Vista HOPE VI Community Task Force on all aspects of this project through all of its various phases. We, therefore, offer our full support of BHA's efforts to apply for the Periwinkle Park Brownfields Grant.

Thank you for your consideration of this important application.

Sincerely,



Pastor Richmond A. Johnson
Branch Director, PYA



Partnering for Youth Achievement



ATTACHMENT E

Community Notification

HOUSING AUTHORITY OF THE CITY OF BREMERTON

September 1, 2011

RE: Hope VI Community Task Force Meeting

Dear Members,

Once again, it is time for our quarterly HOPE VI Community Task Force meeting. The meeting is scheduled to be held on **Tuesday, September 20 at 1:00pm** at The Summit at Bay Vista, Bremerton Housing Authority's newest project, located at 4650 Bay Vista Blvd, Bremerton. We will be meeting in the conference room on the lower floor.

The tentative agenda for this meeting is:

- Welcome;
- Construction update on Bay Vista South;
- Construction update on Bay Vista West;
- Proposed Brownsfields clean up of Perwinkle Park; and
- Update on the Community Supportive Services program

You are encouraged to attend and participate in this meeting. Your feedback is important. Please RSVP to confirm your attendance at the meeting by Friday, September 16. You can RSVP by calling Kim Martin at (360) 373-4740 or by emailing kmartin@bremertonhousing.org.

Thank you for your time and attention to this very important project. If you have any questions, please don't hesitate to call. We look forward to meeting with you September 20.

Sincerely,

Nancy Rees Austin, JD
Real Estate & Contracts Director
Bremerton Housing Authority
naustin@bremertonhousing.org
360-616-7104

76 Russell Road · P.O. Box 4460 · Bremerton, WA 98312 · Phone: (360) 479-3694 · TTY: (360) 377-8606 · Fax: (360) 475-0712

The Housing Authority of the City of Bremerton (BHA) does not discriminate on the basis of race, color, creed, national origin, religion, disability, sex, sexual orientation, age (over 40), military status, whistleblower retaliation, or familial status in admission or access to its programs. If you need to request a reasonable accommodation, contact the BHA Section 504 Coordinator at (360) 479-3694.



Equal Housing Opportunity



Barrier Free





HOUSING AUTHORITY OF THE CITY OF BREMERTON

**Housing Authority of the City of Bremerton
The Summit
4650 Bay Vista Blvd., Bremerton
Tuesday, September 20, 2011
1PM**

HOPE VI Community Task Force Meeting

Agenda

- 1. Welcome and Introductions – Nancy Austin**
- 2. Update on the Westpark HOPE VI Revitalization Program**
 - **Welcome to The Summit;**
 - **Construction update on Bay Vista South;**
 - **Construction update on Bay Vista West;**
 - **Proposed Brownsfields clean up of Perwinkle Park; and**
 - **Update on the Community Supportive Services program – Sarah VanCleve**
- 3. Other Community Initiatives - All**
- 4. Adjournment**

345 6th Street, Ste. 200 · P.O. Box 4640 · Bremerton, WA 98312 · Phone: (360) 479-3694 · TTY: (360) 377-8606 · Fax: (360) 616-2814

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Equal Housing Opportunity



Barrier Free 

HOUSING AUTHORITY OF THE CITY OF BREMERTON

HOPE VI Community Task Force Meeting September 20, 2011 1:00pm

Name	Agency	Email
Cherry Corleone		
Linda Hill	BHA/BAC	
Pastor Richard Johnson	Community	
Sarah Von Oh	BHA	
Manny Cozz	DMTSS	mannycozz@dmstss.org
Mike Brown	BHA	
Nancy Austin	BHA	
Kyle Martin	BHA	
Kurt Wiest	BHA	
Chris Lambert	PRWRCC	
Erin Davis	BHA	
Michelle LaFontaine	KCR	mLaFontaine@kcr.org
Christine Kubli	OC	ckubli@olympic.edu
Jeff Flood	WorkSource	JFLOOD@ESD.WA.GOV
Grover Johnson	Community Organizer	gJohnson@evol.com
Dee Williams	Kitsap Transit	deew@kitsaptransit.com

4040 Wheaton Way, Suite 105 • P.O. Box 2189 • Bremerton, WA 98310 • Phone: (360) 479-3694 • TTY: (360) 377-8508 • Fax: (360) 616-8558

The Housing Authority of the City of Bremerton (BHA) does not discriminate on the basis of race, color, creed, national origin, religion, disability, sex, sexual orientation, age (over 40), military status, whistleblower retaliation, or familial status in admission or access to its programs. If you need to request a reasonable accommodation, contact the BHA Section 504 Coordinator at (360) 479-3694.



Equal Housing Opportunity



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HOPE VI Community Task Force Meeting

September 20, 2011

Meeting Minutes

More than 16 residents and other stakeholders were in attendance. The meeting began with an extensive discussion of the progress of the Bay Vista revitalization project, including the status of the Brownfields Grant application for 2012. Much of the discussion focused on the environmental condition of the landfill site, particularly the lots affected by the 200 foot building setback from the landfill limits and the method of mitigation required for any buildings within that 200 foot setback. BHA gave a brief summary of the project, including the alternatives to the proposed/preferred gas extraction program which would remove the need for building mitigation within the 200 foot setback. BHA addressed the process and timing associated with the EPA Brownfields Grant award. The funding would amount to \$200,000 to be used for the equipment and associated reporting once the extraction process is begun.

The meeting adjourned at 2:30 pm.

Comments

No comments were received regarding the grant application. And all attendees were supportive of BHA's pursuit of this grant.

Bremerton Patriot
3888 Randall Way NW, #100
Silverdale, WA 98383
360-308-9161

Affidavit of Publication

STATE OF WASHINGTON }
COUNTY OF KITSAP } ss

Malia Parrish swears and says: that she is the typesetter for Legal Notices, a section of the Bremerton Patriot and Central Kitsap Reporter, a weekly newspaper. The said newspapers are legal newspapers by order of the superior court in the county in which they are published and are now and have been for more than six months prior to the date of the first publication of the Notice hereinafter referred to, published in the English language continually as a once weekly newspaper in Bremerton and Silverdale, Kitsap County, Washington and is and always has been printed in whole or part in the Bremerton Patriot or the Central Kitsap Reporter and is of general circulation in said County, and is a legal newspaper, in accordance with the Chapter 99 of the Laws of 1921, as amended by Chapter 213, Laws of 1941, and approved as a legal newspaper by order of the Superior Court of Kitsap County, State of Washington, by order dated June 16, 1941, and that the annexed is a true copy of Legal Notices General - 11/16 Mtg-EPA #8217 (BP339143) as it was published once a week in the regular and entire issue of said paper and not as a supplement form thereof for a period of 1 issue(s), such publication commencing on 11/4/2011 and ending on 11/4/2011 and that said newspaper was regularly distributed to its subscribers during all of said period.

The amount of the fee for such publication is \$57.42 which has been paid in full.



Malia Parrish
Kitsap Legals
c/o Bremerton Patriot
3888 Randall Way NW, #100
Silverdale, WA 98383

Subscribed and sworn before me on this 21 day
of November, 2011.



Stephanie McGinnis
Notary Public in and for the State of Washington,
residing in Bainbridge Island, Washington.

NOTICE

The Bremerton Housing Authority is applying for U.S. Environmental Protection Agency (EPA) Brownfield #8217's cleanup Grant funding to clean up methane gas in the abandoned landfill site located adjacent to Oyster Bay Avenue at Bay Vista (formally Westpark) within the future Periwinkle Park. A community meeting is being held to discuss the grant proposal and to solicit comments on the proposal and the proposed use of the funds. The meeting will be held on Wednesday, November 16th 2011 at 11:00 AM at the Housing Authority, 4040 Wheaton Way, Bremerton, WA, 98310 in the Executive Conference Room. A copy of the grant proposal along with an analysis of brownfield cleanup alternatives will be available for review and comment during regular business hours in our office (Suite 215) at the same address beginning November 8th, 2011. For more information about the proposal or the meeting, contact Mike Brown at (360) 616-7160 or email at mbrown@bremertonhousing.org.
Date of publication:
11/04/11
(BP339143)

SUPERIOR COURT OF



HOUSING AUTHORITY OF THE CITY OF BREMERTON

Monthly Board Development Committee Meeting

November 16, 2011

There were no attendees at the regular meeting of the Board in attendance for the EPA Brownfields Grant Application and analysis of alternatives that were advertised.

Office: 4040 Wheaton Way Suite 215
Mail: P.O. Box 2189 · Bremerton, WA 98310

Phone: (360) 616-7160
Fax: (360) 616-2916

The Housing Authority of the City of Bremerton (BHA) does not discriminate on the basis of race, color, creed, national origin, religion, disability, sex, sexual orientation, age (over 40), military status, whistleblower retaliation, or familial status in admission or access to its programs.
If you need to request a reasonable accommodation, contact the BHA Section 504 Coordinator at (360) 479-3694.



Equal Housing Opportunity



Barrier Free



ATTACHMENT F

Analysis of Brownfields Cleanup Alternatives

Draft Analysis of Methane Gas Cleanup Alternatives (ABCA)

The following presents a description of gas control system types and the effectiveness of each type. Gas control systems have typical components such as extraction networks, conveyance piping, and disposal systems. Gas control systems can operate as passive systems or active systems to remove gas from soil and/or refuse. The effectiveness of any type of gas control system is dependent on the site specific conditions of the site and surrounding features, the design of the systems, and the desired gas control objectives.

Introduction and Background

The subject landfill is located on the east edge of the Bay Vista Community, approximately 900 feet south on the intersection of Kitsap Way with Oyster Bay Drive, and is on the west side of Oyster Bay Drive. (See attachment D and D(a). The property has been owned exclusively by BHA since October 31, 1940. The Phase I and Phase II ESA report that the site was naturally vegetated prior to its use as a landfill by the City of Bremerton in 1930. Disposal of waste at the Westpark Landfill is estimated to have occurred in the 1930s and 1940s. When the landfill closed, the domestic waste was covered with fill soils. Landau Associates performed the initial landfill characterization in 2007 and determined the landfill is approximately 30 feet deep. The landfill is located in a glacial depression and there is approximately seven feet of native peat and alluvial soil below the waste. In 2009, Associated Earth Sciences, Incorporated (AESI) conducted additional investigations including eight exploration pits and eight exploration borings to provide more information about the landfill. The depth of the waste below ground varied from 8.5 feet to 20.5 feet. The landfill is estimated to contain between 60,000 and 90,000 cubic yards of waste. Like most landfills during this period, there were no environmental controls or regulations for this landfill. The landfill site was capped with soil and later used as a baseball field and will eventually become a neighborhood park as part of the Bay Vista Redevelopment Project. Up until we commissioned the landfill investigation in 2006, there was no clean up undertaken. **Methane gas detected as part of the Phase II ESA was determined to be confined to just the landfill area only and gas production has ceased over two decades prior to the report. However, the gas remains in stasis, trapped in the ground and must be forced out of the ground through the proposed mitigation of extraction, the preferred method as approved by the Health District.**

Landfill gas, which consists primarily of methane (CH₄) and carbon dioxide (CO₂), is created by decomposition of buried waste due to the organic constituents in the waste (and the nature of the anaerobic decomposition process associated with conventional waste disposal practices). The amount and rate of gas generation depends on the type of waste disposed and its moisture content. Gas generation for landfills containing mixed municipal solid waste typically peaks approximately 1 to 4 years after waste placement. After reaching peak gas generation, the rate of gas generation gradually declines at an exponential rate. If uncontrolled, landfill gas can migrate through soils onto adjacent properties. Uncontrolled migration can lead to intrusion of landfill gas into buildings if the proper conditions exist.

Landfill gas can present a health and safety concerns if not controlled. Methane, which normally occurs in air at 2 parts per million (ppm), is an explosion and fire hazard in air at concentrations greater than 5 percent by volume or 50,000 ppm. Also, carbon dioxide, which occurs normally

in air at 300 ppm, is a health hazard at concentrations greater than 5,000 ppm (Federal Occupational Safety and Health Administration (OSHA) time weighted average Permissible Exposure Limit (PEL)). In addition to this, both of these compounds can pose an asphyxiation hazard by displacing air in confined spaces such as underground vaults or rooms with no ventilation.

Gas control/mitigation systems are commonly implemented in response to regulatory requirements designed to minimize or prevent risk to public health and safety. Landfill gas mitigation systems may also be implemented for the following reasons:

- Health and safety concerns for onsite or offsite personnel
- Odor control
- Lateral subsurface migration control
- Surface emissions control
- Reduction in groundwater contamination
- Protection of the cover system
- Energy recovery

Passive and Active Gas Control Systems

Gas control systems are typically classified as passive or active control systems based on their method of removing gas from the refuse mass and/or soil.

- **Passive Gas Control:** relies on pressure generated from gas production and atmospheric conditions to vent gas to the atmosphere. Passive gas collection is most effective when combined with barriers (such as a geomembrane liner, cover, or curtain) which restrict gas movement into surrounding soils and the atmosphere, and force the gas to move into the extraction network and conveyance piping.
- **Active Gas Control:** relies on a vacuum from an exhauster or blower (vacuum pump) which induces a vacuum into the conveyance piping and extraction network to draw gas from the landfill or soils. Active gas control systems are used most often at sites where large quantities of gas are present or where passive venting is not effective at meeting the gas control objectives. Active gas control systems may also be used to draw landfill gas back into a landfill from offsite soils where gas migration has occurred.

Typical Components of a Gas Control System

Gas control systems typically consist of an extraction network, conveyance piping, and treatment/disposal system. A subsurface gas monitoring network and, in specific situations, a building monitoring network, or program may be used to monitor the performance of the gas control system.

An extraction network may consist of one or more of the following: vertical wells, horizontal wells, porous collection layers of material (such as gravel and/or geosynthetic composite netting), and/or low permeable barrier layers (such as clays and/or geomembranes found in liner systems and cover systems). The extraction network allows the gas to be conveyed directly to

the atmosphere or to a conveyance piping system. The extraction network for a passive system is usually more extensive (requiring additional horizontal wells, vertical wells or layers) than an extraction network for an active system. This is because the passive system is not as efficient as an active system at relieving the pressure generated inside the landfill or recovering gas that has migrated into native soils.

The conveyance piping system transmits the gas from the extraction network to the point of discharge. Conveyance piping typically consists of a manifold arrangement of pipes that connect all of the extraction points and convey the gas to a single discharge point. Conveyance piping is typically used with an active gas system where there is a single discharge point for treatment and disposal. Conveyance piping is seldom used with a passive gas system unless the site has a very impermeable (composite) liner system and cover system. This is because the pressure needed to force the gas through the pipeline also causes gas to migrate through the surrounding soils.

The treatment and disposal of gas is commonly accomplished by venting directly to the atmosphere or treatment by filtration or thermal oxidation prior to atmospheric discharge. Venting directly to the atmosphere is typically done with small passive systems where odor control is not a concern and where methane content is too low to support combustion (as allowed by the local regulatory air agency). Although not as common, treatment by filtration (using an activated carbon filter) is done with small active systems where gas quality is poor and unreliable. However, this treatment method becomes costly due to the operating cost of replacing filter media. Thermal oxidation or flaring is the most common treatment/disposal method at large landfills and small landfills with active gas control systems and good gas quality (high methane content).

A subsurface gas monitoring network usually consists of a series of subsurface gas monitoring wells (gas probes) strategically placed at select locations to allow for sampling of gas from the soil. These gas probes are usually monitored by personnel using a portable gas analyzer.

A building monitoring network may consist of stationary gas analyzers (sensors) placed at strategic locations that continuously monitor for the presence of combustible gas or a program of routine monitoring by personnel using a portable gas analyzer.

Advantages/Disadvantages of a Passive System

The primary advantages of passive systems are that they require less capital and operating and maintenance costs than do active systems. Passive systems are most efficient with multiple disposal or discharge points. Passive systems work well when the main control objective is protecting the cover system from pressure buildup. Passive systems also work well when a landfill has a composite liner system and cover system thereby forcing gas into the extraction network.

Passive systems generally do not work effectively in preventing gas migration. This is because passive systems do not alleviate the pressure gradient which causes gas migration. Passive systems in themselves (without a liner system) will not prevent gas migration. For the same reason, single point disposal via conveyance piping is not effective because it requires significant pressure to move the gas through the conveyance piping to the point of disposal. This same pressure required to move the gas through the conveyance piping also forces gas through surrounding soils because gas will travel in the path of least resistance.

Flaring with a passive system is difficult for small landfills because of poor control over gas quality and quantity. Disposal by filtration or flaring is problematic with passive systems due to fluctuations in gas quantity and quality.

Advantages/Disadvantages of an Active System

Advantages associated with the active gas control systems include: preventing gas migration, recovering gas which has migrated offsite, conveying gas to a single disposal point, reducing surface emissions of greenhouse gases, controlling odor, and maintaining gas quality for flaring. Active systems are used when the main control objectives are odor control, prevention of gas migration, recovery of gas which has migrated offsite, cover system protection from pressure buildup or energy recovery. Active systems work well whether or not a landfill has a liner system or cover system.

The main disadvantage of active systems is that they are more expensive to build and operate than passive systems. In the instant case, the costs for the passive system would amount to approximately \$50,000.00 and the active system approximately \$180,000.00.

Recommended Approach to Landfill Gas Source Control and Mitigation

As stated above, a gas control/mitigation system is recommended to recover gas which has migrated into soils surrounding the landfill (and prevent any future migration in the unlikely event of additional gas generation).

To accomplish the objectives outlined above, the installation of an active gas control/mitigation system is recommended. For this particular site, a passive gas control system will not mitigate gas migration because of the site characteristics (e.g., depth of waste, lack of a liner system, surrounding soil conditions, and impacts associated with the proposed development). Also, a passive gas control system will not effectively transmit gas through a conveyance pipe system to a single disposal point.

SCS believes the best approach to subsurface migration of landfill gas is to install an active gas control system with vertical gas extraction wells. This is necessary due to the depth of waste, unknown extent of gas migration, absence of existing environmental controls, surrounding soil conditions and impacts associated with the proposed development. Horizontal gas extraction wells will not provide sufficient migration control due to the depth of waste and lack of ability to extract from deeper waste regions.

An active gas mitigation system would take advantage of the increased efficiency of an induced, negative pressure (vacuum). An additional advantage of an active system would be the reduced size of the extraction network compared to a passive system. This results in a significant construction cost savings in the extraction network component of the gas system and results in more efficient extraction.

To monitor the performance of the system, a subsurface gas monitoring network is also recommended to allow for measurement of soil gas at strategic locations and demonstrate reduction of methane in the soil over time.

Concerning the no action alternative, this option is not considered viable as it would cause the area within 200 feet of the landfill limits to be economically unbuildable due to the cost of the building mitigation systems that would have to be incorporated within the structure and the cost of on-going monitoring.

ATTACHMENT G

Special Considerations Checklist

Appendix 3 Special Considerations Checklist

Please identify (with an **X**) if any of the below items apply to your community or your project as described in your proposal. EPA will verify these disclosures prior to selection of the grant.

- Community population is 10,000 or less
- Federally recognized Indian tribe
- United States territory
- Applicant assisting a Tribe or territory
- Targeted brownfield sites are impacted by mine-scarred land
- Targeted brownfield sites are contaminated with controlled substances
- Community is impacted by recent natural disaster(s)
- Community demonstrates firm leveraging commitments for facilitating brownfield project completion by identifying amounts and contributors of funding in the proposal and have included documentation
- Community experiencing plant closures (or other significant economic disruptions), including communities experiencing auto plant closures due to bankruptcy
- Applicant is a recipient of a HUD/DOT/EPA Partnership for Sustainable Communities grant
- Community is implementing green remediation plans



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-5000

OFFICE OF PUBLIC AND INDIAN HOUSING

Mr. Kurt Wiest
Executive Director
Housing Authority of the City of Bremerton
110 Russell Road
Bremerton, WA 98312

NOV 26 2008

SUBJECT: Confirmation of FY 2008 HOPE VI Revitalization Grant Funding Approval and Transmittal of HOPE VI Revitalization Grant Agreement
HOPE VI Grant Number: WA19URD003I108

Dear Mr. Wiest:

Congratulations! I am pleased to confirm that the Housing Authority of the City of Bremerton has been selected to receive a FY 2008 HOPE VI Revitalization grant funding award in the amount of \$20,000,000. Your proposal to revitalize the Westpark public housing development is one of six selected proposals that best embody the goals of the HOPE VI Revitalization Program. Additionally, this letter transmits your FY 2008 HOPE VI Revitalization Grant Agreement and other important information about your grant.

This grant award will allow you the opportunity to implement the elements of public housing transformation that have proven key to the HOPE VI Revitalization Program. By changing the shape of public housing, lessening the isolation of low-income families, forging partnerships and establishing strong self-sufficiency programs for residents, we will continue, through your efforts, the transformation that is already occurring throughout the nation.

The Office of Public Housing Investments (OPHI), in close cooperation with your state or area HUD office, will administer your grant. Your Grant Manager will be your primary HUD contact person as you implement your HOPE VI Revitalization grant and will be available to answer any questions you may have. By now, your Grant Manager has contacted you in order to schedule the initial site visit, or you may already have completed the initial site visit, as described below. The main OPHI telephone number is (202) 401-8812 and the fax number is (202) 401-2370 (these are not toll-free numbers). OPHI is located at the following address:

U.S. Department of Housing and Urban Development
Office of Public Housing Investments
451 Seventh Street SW, Room 4130
Washington, DC 20410

The selection of your housing authority for a HOPE VI Revitalization grant does not necessarily mean endorsement of each detail of the plan proposed in your application. My staff and I will be working with you in the coming months to ensure that your Revitalization Plan is fully developed, maximally effective, and legally and financially sound.

Grant Agreement

Enclosed are two copies of your FY 2008 HOPE VI Revitalization Grant Agreement. This document memorializes the agreements made between you, as the Grantee, and HUD, and incorporates all documents relating to the grant, including the March 26, 2008 Notice of Funding Availability (NOFA), your application, and all subsequent documents. Please sign and date the signature page for both copies and return them to Ms. Leigh van Rij at the address provided earlier in this letter. You also must provide a copy of the housing authority's code of conduct, as required by the Program Requirements section of the HOPE VI NOFA and the General Section of the SuperNOFA.

The two Grant Agreements (each signed and dated) and the copy of the code of conduct must be returned to HUD via overnight carrier no later than **December 5, 2008**. Once the Grant Agreements are received and executed by HUD, one original will be kept by the Department and the other will be returned to you. The date that HUD executes (i.e., signs) the Grant Agreement signature page for your grant is the execution date of the Grant Agreement.

Form HUD-1044

This letter also transmits an original of the fully-executed Form HUD-1044 ("Assistance Award/Amendment" form), which obligated the grant funds to your PHA. Please keep the 1044 in your official records for the grant.

HOPE VI Guidance

Your HOPE VI Grant Manager will be your primary source of guidance and information about your HOPE VI Revitalization grant. In addition, there is a great deal of information on the HOPE VI web site, which is located at www.hud.gov/hopevi. There you will find information about accessing LOCCS, completing budgets, and other administrative duties. There is also valuable information on mixed finance development, procurement, and other technical areas. I urge you to familiarize yourself with the website and take advantage of the information posted there.

Predevelopment Funds

Once your Grant Agreement has been executed, you may request HUD to approve the release of predevelopment funds for anticipated expenses over the next eight months. This will be accomplished through the approval of your HOPE VI budget. In accordance with the Grant Agreement, predevelopment funds may include eligible costs incurred between the written notification of grant award and execution of your Grant Agreement. The official written notification date of your grant award is September 19, 2008, the date of your award letter from Secretary Preston. Submission of a HOPE VI budget is not required at this time, but if you would like to draw down funds for predevelopment costs, submit your request on Form HUD-52825A, Parts I and II (the HOPE VI Budget form). Part II must include a detailed description of the uses of the funds. You may wish to discuss the HOPE VI budget at the time of the initial on-site meeting discussed below. To assist you in preparing HOPE VI budgets, please consult "HOPE VI Budget Guidance" on the Grant Administration section of the HOPE VI web site. A copy of the budget form itself is also available from that site.

Once you have completed your HOPE VI budget, sign and date it and submit it to your Grant Manager for review. Please note that your Grant Manager will forward any budget request

for HOPE VI CSS funds to the assigned CSS Grant Manager for his or her review and approval. When the budget request is approved, OPHI will return a signed copy to you for your files and will spread the approved predevelopment funds in LOCCS. At that point, they will be available for drawdown.

Authorization in LOCCS

In order to access grant funds, at least two PHA staff members must be authorized for HOPE VI in LOCCS, HUD's grant payment system. Banking information also must be submitted to HUD. If you are not familiar with LOCCS, please refer to "Grantee Financial Instructions" on the Grant Administration section of the HOPE VI Home Page, which provides detailed information about LOCCS access, banking information, and completion of the HOPE VI voucher.

Expenditure of FY 2008 HOPE VI Revitalization Funds

FY 2008 HOPE VI grants are subject to the requirements established under 31 U.S.C. § 1552. In accordance with this statute, **all FY 2008 HOPE VI grant funds must be expended by September 30, 2013.** Any funds that are not expended by these dates will be cancelled and recaptured by the Treasury and thereafter will not be available for obligation or expenditure for any purpose. Given this statutory requirement, Grantees must comply with their Program Schedule, developed in accordance with the time periods for implementation established in the Grant Agreement, and as approved by HUD.

CSS Case Management

Please be advised that you must start case management services as soon as possible, if you have not already, in accordance with the plan stated in your application. That is, if you committed to begin case management services within 30 days of the date of the grant award, September 19, 2008, your case management services must have begun by October 19, 2008. It is imperative that case management services begin immediately, if they have not already, so that residents who will be relocated have time to participate in and benefit from CSS activities before leaving the site, and so that residents who already have been relocated may also participate in and benefit from CSS activities.

Initial Site Visit

The next step in the implementation of your HOPE VI Revitalization grant is to participate in an initial site visit with the key players involved in your revitalization process. Your Grant Manager has contacted you in order to schedule this important meeting, or you may already have completed the initial site visit. After the initial site visit, you will receive a letter from HUD conveying observations and recommendations, as relevant, formed as a result of the site visit. You must submit any required modifications to the Revitalization Plan proposed in your application to your Grant Manager. These submissions will be referred to as "supplemental submissions" and will become part of your Revitalization Plan. For more information on the components of a HOPE VI Revitalization Plan, please see the Grant Agreement, Article II.

Environmental Reviews

Please note that you may not carry out activities with respect to demolition, disposition, development, acquisition and/or any off-site replacement public housing until an environmental review has been conducted on each site for each activity. Please review "HOPE VI

Environmental Review Requirements" on the Grant Administration section of the HOPE VI web site and the Grant Agreement, Article XIV.

Housing Choice Voucher Assistance

As you know, the HOPE VI NOFA allowed that applicants could request housing choice voucher (HCV) assistance in connection with the HOPE VI revitalization plan proposed in the application and the relocation needs of its residents. The dollar amount of HCV assistance was in addition to the \$20,000,000 maximum award amount. HUD would process the HCV assistance applications for funded HOPE VI applicants. At the time the HOPE VI Revitalization grant was awarded, HUD was able to fund \$1,437,426 of your HCV request with HOPE VI funds. The balance of your request will be funded using tenant protection voucher funds. Please provide to your Grant Manager and Ms. van Rij a lease-up schedule for your voucher needs. This lease-up schedule should be prepared in accordance with the lease-up schedule requirements described in Notice PIH 2007-10 (and any reinstatement of or successor to that Notice). The Housing Authority should ensure that it manages and tracks the HCV budget authority so that funds are available for the relocation of HOPE VI residents at the necessary time, as indicated in the lease-up schedule. OPHI will work with the local HUD field office and the Housing Voucher Financial Management Division in order to process this transaction.

Time Periods for Implementation, Program Schedule, and Locked Checkpoints

Please be reminded that timeliness and accountability are top priorities of the HOPE VI program. Your program schedule must comply with the requirements of the Grant Agreement, and specifically Article II(E), "Time Periods for Implementation." In addition, please be advised that HUD is very serious about each HOPE VI Revitalization grantee implementing its grant in accordance with the locked checkpoints identified in the HOPE VI quarterly reporting system. Failure to comply with the locked checkpoints may cause the grant to be placed in default.

Again, congratulations. Applications for this HOPE VI funding round were extremely competitive, and you should be proud of your accomplishment. Please extend my congratulations to your entire team. We look forward to working jointly with you and your partners in carrying out the transformation of severely distressed public housing, and we thank you for your commitment to the HOPE VI Program.

Sincerely,



Dominique Blom
Deputy Assistant Secretary
for Public Housing Investments