



COUNTY COUNCIL OF BEAUFORT COUNTY

ADMINISTRATION BUILDING BEAUFORT COUNTY GOVERNMENT ROBERT SMALLS COMPLEX 100 RIBAUT ROAD

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CYNTHIA M. BENSCH RICK CAPORALE GERALD DAWSON BRIAN E. FLEWELLING STEVEN G. FOBES ALICE G. HOWARD WILLIAM L. MCBRIDE STEWART H. RODMAN ROBERTS "TABOR" VAUX, JR. AGENDA NATURAL RESOURCES COMMITTEE Monday, October 17, 2016 2:00 p.m.

Executive Conference Room, Administration Building Beaufort County Government Robert Smalls Complex 100 Ribaut Road, Beaufort

Committee Members:
Brian Flewelling, Chairman
Alice Howard, Vice Chairman
Gerald Dawson
Steve Fobes
William McBride
Jerry Stewart
Roberts "Tabor" Vaux

Staff Support:
Anthony Criscitiello, Planning Director
Gary James, Assessor
Eric Larson, Division Director
Environmental Engineering
Dan Morgan, Division Director
Mapping & Applications

- 1. CALL TO ORDER 2:00 P.M.
- 2. A RESOLUTION REQUESTING THE GENERAL ASSEMBLY TO AMEND THE ANNEXING AUTHORITY OF MUNICIPALITIES AND PROVIDE COUNTY COUNCILS THE ABILITY TO PROTECT THEIR CITIZENS FROM LAND USE THAT MAY BE INAPPROPRIATE AND CONTRARY TO THE COMPREHENSIVE LAND USE AND TRANSPORTATION PLAN ADOPTED BY THE COUNTY (backup)
- 3. DISCUSSION / TEXT AMENDMENTS TO THE COMMUNITY DEVELOPMENT CODE:
 - A. Overnight Parking of Trucks (backup)
 - B. Home Occupation (backup)
- 4. DISCUSSION / ENVIRONMENTAL PROTECTION AGENCY (EPA) ISSUE REGARDING KALAMA CHEMICAL (backup)
- 5. UPDATE / HURRICANE MATTHEW RECOVERY FUNCTIONS (backup)
- 6. CONSIDERATION OF REAPPOINTMENTS AND APPOINTMENTS A. Zoning Board of Appeals
- 7. ADJOURNMENT

2016 Strategic Plan Committee Assignment
Stormwater Management Program
Creek Restoration: Progressive Projects for Saltwater, Quality, Recommendations
Tree Ordinance: Evaluation Report, Revision
Affordable / Workforce Housing
Pepper Hall Plantation Site
Comprehensive Plan: Update
Park Potential Development
Community Development Code: Refinements





RESOLUTION NO:	
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A RESOLUTION REQUESTING THE GENERAL ASSEMBLY AMEND THE ANNEXING AUTHORITY OF MUNICIPAL GOVERNMENTS

WHEREAS, Beaufort County's Comprehensive Plan, Zoning Regulations and Development Standards do not apply to real property upon annexation of the property by a municipality; and

WHEREAS, future development and use of annexed property may be inconsistent with Beaufort County's Comprehensive Plan, Zoning Regulations and Development Standards and detrimental to the public health, safety, morals, convenience, general welfare and quality of life of non-municipal residents; and

WHEREAS, non-municipal residents of Beaufort County have expressed concerns to Beaufort County Council about County residents not having representation concerning annexations in Beaufort County which may impact them and their properties; and

WHEREAS, Beaufort County Council believes non-municipal residents should have recourse through their elected County representatives on matters which affect public health, safety, morals, convenience, general welfare and quality of life; and

WHEREAS, Beaufort County Council requests that the General Assembly of the State of South Carolina amend the annexation laws of this State so as to allow Beaufort County Council to protect the public health, safety, morals, convenience, general welfare and quality of life of non-municipal citizens.

NOW, THEREF	ORE BE IT	RESOLVED by the Beaufort County Council in session duly
assembled this	day of	, 2016, that in order for Beaufort County to
provide for the pu	blic health, sa	afety, morals, convenience, general welfare and quality of life of
its non-municipal	citizens, State	e law should be amended to authorize County governments to
approve or deny a	annexations or	nly after review and public hearing of the matter before County
Council.		
Adopted this	day of	, 2016.
		COUNTY COUNCIL OF BEAUFORT COUNTY
		D. Paul Sommerville, Chairman

APPROVED AS TO FORM:
Thomas J. Keaveny, County Attorney
ATTEST:
Ashley M. Bennett, Clerk to Council

	Land Hearthan	TI		72	172	172	T2		T3	Т3	T3	14	74	14	74	1_	T	T	T
į	Land Use Type	N	T2R	RL	RN	RNÓ		TJE	HN	N	NO	HC		HCC	NC	C3	C4	C5	
	RECREA	TIC	N,	EDL	JCA	TIO	N, S	AFE	TY,	PU	BLIC	AS	SEA	1BL	Y		**		
I.	Community Oriented Cultural Facility (Less than 15,000 SF)				-		Р					Р	Р	Р	Р	ТСР	Р	P	T
2	Community Oriented Cultural Facility (15,000 SF or greater)				-		s						S	Р	Р		Р	Р	T
3.	Community Public Safety Facility	-	Р	Р	Р	Р	Р			Р	Р	Р	·P	P	Р	Р	Р	Р	T
4.	Institutional Care Facility		S				S			==				P	P		Р	P	١.
5.	Detention Facility		S											-					
б.	Meeting Facility/Place of Worship (Less than 15,000 SF)		С		С	С	С	С	С	С	С	С	С	С	С	С	С	С	
7.	Meeting Facility/Place of Worship (15,000 or greater)		S		-		С			(alta)	С	С	С	С	С	С	С	С	-
	Park, Playground, Outdoor Recreation Areas	P	P	Р	Р	Р	Р	Р	Р	P	Р	Р	Р	Р	Р	Р	Р	Р	f
	Recreation Facility: Commercial Indoor		date				-	-					Р	Р	Р	200	Р	Р	-
	Recreation Facility: Commercial Outdoor		S				-		-	-			С	С	-		С	С	-
	Recreation Facility: Community-Based				-	-	Р					-	Р	P	Р		Р	Р	-
	Recreation Facility: Golf Course	40	Р						-					-		Р			-
13.	Recreation Facility: Campground	S	С	-	-											-			
_	Ecotourism	S	С	-	C	С	С					- 1]		***
	School: Public or Private				***		S	-			S	P	P	P	P	P	P		**
	School: Specialized Training/Studio	-	-	40	-	-	S				Р	P	P	Р	Р	Р	Р	P	P
7.	School: College or University						S]]		S		Ś	S	S	S	S	-
	INFRASTR	UCT	UR	E, T	RAN	ISPO	PRT	ATI	ON,	CO	MM	UNI	CA	TIO	NS				
,	Airport, Aviation Services		S						1			_ []	1]	1	S
	Infrastructure and Utilities: Regional (Major) Utility		С	С	С	С	С	S	S	S	С	С	С	С	С	С	С	С	C
	Parking Facility: Public or Commercial	-			-	-	P				-		P	P	P	-	P	Р	F
	Transportation Terminal			-			S				=		P	P	P		P	P	P
	Waste Management: Community Waste Collection & Recycling	-	С	-	-		С				-						С	С	С
	Waste Management: Regional Waste Transfer & Recycling	-	S							-	-	-						С	С
	Waste Management: Regional Waste Disposal & Resource Recovery	-	s	-				-	-	-		-	-	-	-	-		-	s
	Wireless Communications Facility		s	s	S	S	S	-		-		s	S	s	S	S	С	С	С
_	personal designation of the second se		-	PERSONAL PROPERTY.	100	12	T2 .	-	-		100	T4	the state of	Te I	74	7	-		-

[&]quot;P" Indicates a Use that is Permitted By Right.

"C" indicates a Use that is Permitted with Conditions.

"S" indicates a Use that is Permitted as a Special Use.

"TCP" indicates a Use that is permitted only as part of a Traditional Community Plan under the requirements in Division 2.3

"--" indicates a Use that is not permitted.

- Semi-trailer trucks, their cabs or trailers, and other heavy trucks shall not be parked or stored on any residential lot except within the T2 district;
- Shall be stored in the rear or interior side setback behind the front of the building, garage, or carport;
- 3. There is a principal use of the property, to which such storage would be accessory;
- No living quarters shall be maintained or any business conducted from within while such trailer or vehicle is so parked or stored; and
- 5. The required parking on the parcel is maintained in addition to the area used for the stored vehicle(s).
- B. Off-Site/Premise Parking. If a property owner is unable to provide the required parking on-site, the owner may at the discretion of the Director satisfy the parking requirement off-site provided the following standards are met.

1. General to All Zones

- a. Required parking may be provided in off-street parking facilities on another property within 600 feet of the site proposed for development, as measured:
 - Along the street right-of-way; or
 - (2) Between the closest edge of such parking facilities to the closest edge of the site being served.
- Pedestrian access between the use or the site and the off-premise parking area shall be via paved sidewalk or walkway.
- c. The owner shall provide a recorded parking agreement reflecting the arrangement with the other site. The shared parking arrangement shall require a recorded covenant running with the land, recorded by the owner of the parking lot, guaranteeing that the required parking will be maintained exclusively for the uses served and remain for the duration of the use.
- d. If the off-premise parking facility is shared, the Director may allow a reduction in the number of required parking spaces. The reduction shall be based on the Shared Parking practices procedures outlined in Section 5.5.40 (Number of Motor Vehicle Parking Spaces Required).
- e. All off-street parking facilities shall be located on property zoned for the use which the parking is intended to serve, or specifically permitted for parking facility uses in Table 3.1.60 (Consolidated Use Table).
- Specific to Conventional Zones. Off-site parking facilities for a non-residential use shall not be located in a C3 zone.
- C. Pervious parking: The use of pervious parking spaces is strongly encouraged to promote on-site stormwater infiltration, aquifer recharging, and improved water quality.

5.5.40 Number of Motor Vehicle Parking Spaces Required

A. General to All Zones

 Motor Vehicle Parking Spaces Required. The number of parking spaces required shall be determined by the Table 5.5.40.B (Number of Motor Vehicle Parking Spaces Required) below. Uses not listed below shall use the parking requirement for the most similar use, as determined by the Director.

Beautor: County Community Development Code

Accessory Use	Standards
General	Nonresidential uses may have a variety of accessory uses within the principle structure, or in separate structures, subject to the standards, below. No uses or structures shall be located within the front yards. Placement of accessory uses shall be at the landowner's discretion, except for loading and storage, as provided, below.
	All uses and accessory uses not otherwise permitted in the district shall be prohibited, except where the use is essential to, or traditionally conducted in association with, the principal use which is a permitted use, conditional use, or approved special use. Industrial uses shall not be permitted except under a home use option.
	Accessory storage (open and enclosed) shall not exceed 20% of the floor area of the primary use, including residential uses.
Trucks and heavy equipment, storage	Trucks, their cabs or trailers, construction vehicles or equipment, or commercial vehicles may part on residential lots within the Dale CP Zoning District. These uses are limited to site of one acre or greater and shall provide 50-foot buffers along the perimeter of the site. A total of two trucks, construction vehicles or commercial vehicles are allowed per site.

Table 4.2,20A: Table of				2 Sec	diam'r					5		/1			T		
Accessory Use/ Structure Type	Additional Requirements	-	T2R T2RL	T2 RN	T2 RNO	T2 RC	T3E	T3 HN	T3 N	T4 HC	₩.	T4 HCO	NG.	C3	CI	C5	s
Accessory / Secondary Dwelling Unit	4.2.30		Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р			-
Cottage Industry	4.2.40		Р	MAR.	Р	P			1,								-
Fences and Walls	4.2.50	Р	Р	Р	Р	Р	Р	Р	P	Р	Р	Р	Р	Р	P	Р	P
Food Sales (Indoor)	4.2.60		P	en.	Р	Р		7-0	1	Р	Р	Р	Р		P	P	P
Freestanding Accessory Structure (includes Garages and Sheds)	4.2.20.E	Р	P	P	Р	Р	Р	Р	Р	Р	P	Р	Р	Р	Р	Р	Р
Guest House	4.2.70		Р	P	Р	P	Р	P						P		-	-
Home Business	4.2.80	P	P	Р	Р	Р		4041	Р	Р	P	Р	Р	Р	••		
Home Office	4.2,90		Р	P	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р			Car
Outdoor Display (as an Accessory Use)	4.2.100			-	Р	Р				-	Р	Р	Р		P	P	
Outdoor Storage (as an Accessory Use)	4.2.110				-	Р						Р	Р		Р	Р	Р
Private Fish Ponds	4.2.200		Р	Р	Р	Р		-			gr#	**		P			
Private Stables	4.2.120	-	Р	Р	P					-		-	-	Р	-		
Satellite Dish Antenna	4.2.130	P	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	P
Security Quarters	4.2,140				-	Р					Р	P	Р		Р	Р	Р
Small Wind Energy System	4.2.150	Р	Р	Р	Р	Р		-								-	P
Solar Energy Equipment	4.2.160	Р	P	Р	Р	Р	Р	Р	P	Р	Р	Р	Р	Р	Р	Р	Р
Swimming Pools, Hot Tubs, and Ornamental Ponds and Pools	4.2.170	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р
Waste Receptacles and Refuse Collection Areas	4.2.180	-	Р	Р	Р	Р			P	Р	Р	Р	Р	Р	Р	P	Р
Water/Marine-Oriented Facilities	4.2.190	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	P	Р	Р	Р

P=Permitted Subject to the Additional Requirements --=Not Allowed

4.2.60 Food Sales (Indoor)

Food sales occurring as an accessory use shall comply with the following standards:

- A. Zones Allowed. Indoor food sales shall be permitted as an accessory use to a principal nonresidential use in accordance with Table 4.2.20.A (Table of Permitted Accessory Uses).
- B. Size. The amount of square footage utilized by food sales operations (including preparation, sales, and storage, but not including dining) shall not exceed 30 percent of the principal use where located.
- B. Entrances. Entrance to the food sales area shall be via the principal use it serves.
- C. Parking and Signage. Accessory indoor food sales shall not have dedicated off-street parking areas or signage.

4.2.70 Guest House

A guest house shall comply with the following standards:

- A. Zones Allowed. A guest house shall be permitted as an accessory use to a principal residential dwelling unit in accordance with Table 4.2.20.A (Table of Permitted Accessory Uses).
- B. No Rental Permitted. A guest house shall be for use by the property owner and his/her guests only. It shall not be for lease or rent and must be connected to the same utility meters, septic system, well, etc., as the principal dwelling.
- C. Density. One guest house shall not count toward any applicable residential density requirements. Additional guest houses are permitted as long as the total number of residential units on the property does not exceed the applicable density requirements.
- D. Size of Unit. The size of a guest house shall not exceed that of the principal single-family dwelling and shall be clearly subordinate to it.
- E. **Design of Unit.** The unit shall maintain the architectural design, style, appearance and character of the principal single-family dwelling. Manufactured homes, recreational vehicles and travel trailers shall not be used as a guest house.
- F. Construction May Occur Before Principal Dwelling. A guest house may be constructed prior to the construction of the principal dwelling.

4.2.80 Home Business

A home business occurring as an accessory use to any principal dwelling unit shall comply with the following standards:

- A. Prohibited Uses. The following uses are prohibited as a home business:
 - The repair, rental, sales or assembly of vehicles or equipment with internal combustion engines (such as outboard marine engines, lawnmowers, etc.); battery motors (such as golf carts, electric cars, etc.); or any other work related to automobiles and their parts;
 - Repair, rental or sales of large appliances (such as washing machines, dryers and refrigerators, etc.);

- 3. Restaurants and bars;
- Animal boarding facilities (such as kennels, animal hospitals, commercial stables, etc.);
- 5. Commercial lodging;
- 6. Adult entertainment;
- 7. Medical offices and clinics; and
- 8. Body branding, body piercing, or tattoo facilities.

B. Size/Area

- The home business shall be clearly incidental and secondary to the property's use for residential purposes.
- No more than 1,000 square feet of an accessory structure, such as a garage, may be used for the home business. No alterations shall be made to the external appearance of any principal or accessory structure or of the property that changes the character of the site from residential to non-residential.
- C. Residency. The operator of a home business shall own and reside on the property.
- D. **Employees.** The home business shall employ no more than three persons who do not reside on the premises.

E. Neighborhood Compatibility

- Only one vehicle used by the operator for business use, shall be permitted with the home business.
- Traffic generated by the home business must not negatively impact the safety, ambiance and characteristics of the neighborhood where the home business is located. The increase to existing traffic created by the home business shall not exceed 20 trips per day, on average.
- 3. All storage areas for equipment and supplies associated with the home business shall be completely screened from view with a wood fence and/or landscaping. Equipment and supplies shall be stored in a manner so that they are not visible beyond the wood fence and/or landscaping. Storage of hazardous substances, other than substances of a type and quantity customarily associated with a home or hobby, is prohibited.
- 4. No home business or equipment used in connection with a home business may cause odor, vibration, noise, or electrical interference that is perceptible beyond the lot line of the property upon which the home business is conducted.
- Outdoor light fixtures, if any, shall be cut-off fixtures mounted in such a manner that the cone of light is not directed at any property line.
- 6. The sale of products grown, made or repaired on site is permitted. In addition, incidental retail sales are allowed in connection with a permitted home business (for example, a hair stylist may sell hair products to customers). No outdoor display of products for sale is permitted.
- F. **Signage.** One non-illuminated yard sign that complies with Section 5.6.190 (Yard Sign Type) may be placed on the property to advertise the business.



Explanation of Significant Differences Kalama Specialty Chemicals Superfund Site

Site Name:

Kalama Specialty Chemicals Superfund

Site

CERCLA ID #:

SCD094995503

Site Location:

3090 Trask Parkway, Beaufort, South

Support Agency: (

Carolina

Lead Agency:

EPA, Region 4

South Carolina Department of Health &

Environmental Control



Beaufort, South Carolina

I. Introduction

This decision document presents an Explanation of Significant Differences (ESD) for the Kalama Specialty Chemicals (KSCI) Superfund Site (Site), located in Beaufort, South Carolina. The Record of Decision dated September 28, 1993 is addressed by this ESD.

The ESD is issued in accordance with § 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), § 300.435(c)(2)(i). The Director of the Superfund Division has been delegated the authority to sign this ESD.

This ESD will become part of the Administrative Record for the Kalama Specialty Chemicals Superfund Site (NCP 300.825(a)(2)), which has been developed in accordance with § 113 (k) of CERCLA, 42 U.S.C. § 9613 (k).

The Administrative Record is available for review at the Beaufort County Library – Beaufort Branch, located at 311 Scott Street, Beaufort, South Carolina, Monday and Wednesday 9:00am–7:00pm, Tuesday and Thursday 9:00am–6:00pm, Friday and Saturday 9:00am–3:00pm and at U.S. EPA Region 4, 11th Floor Library, 61 Forsyth Street SW, Atlanta, Georgia 30303, Monday - Friday, 7:30am -4:30pm.

II. Statement of Purpose

Since the ROD finalization date, issues concerning institutional controls have been identified at the Site.

The purpose of this ESD is to document a final decision to implement institutional controls in the form of restricting the use of groundwater on parcels impacted by contaminated groundwater. Beaufort County identifies the following parcels within the Site property boundary: R100 020 000 0091 0000 and R100 020 000 0089 0000.

The 1993 ROD did not require institutional controls. Groundwater contamination remains on site and has migrated offsite; therefore, groundwater use

restrictions should be implemented on any impacted properties.

The EPA prepares an ESD when it is determined by the Agency that changes to the original selected remedy are significant, but do not fundamentally alter the remedy selected in the ROD with respect to scope, performance, or cost.

III. Site History and Contamination

Site History

The principal product manufactured at the Site was Krenite, an herbicide made under contract with the DuPont Company. Wastes from the Site included wastewater, composed of cooling water, runoff, boiler blowdown and pump seal leakage and spillage disposed of onsite, and other non-aqueous and organic wastes, which companies disposed of at approved offsite incineration or disposal facilities. From 1973 through 1975, operators discharged wastewater from the facility production area to a small depression in the land, where the wastewater then percolated into the ground.

Between 1976 and 1979, company workers treated wastewater onsite through a land application system consisting of an aerated, bentonite-lined holding pond and tile field. A lift station pumped this wastewater from the operations area to the holding pond via an underground pipe. In an attempt to prevent migration of wastewater to surface waters offsite, the wastewater was stabilized in the holding pond and then discharged to a large tile field, in an attempt to percolate the stabilized wastewater to the water table aquifer.

In addition to the release of wastewater at the Site, onsite incineration may have caused other contaminant releases during the 1970s. Employees periodically burned nonchemical solid waste materials (cardboard, pallets and fiber containers) in a depressed location beyond the fence line, west of the operations area.

In addition, in a bentonite lined pit onsite, workers burned a methanol/ethanol waste stream, possibly containing trace amounts of ethyl chloride from the Krenite manufacturing process. KSCI also used the pit for firefighter training.

During the 1970s, contamination problems at the Site came to the South Carolina Department of Health and Environmental Control's (SCDHEC) attention. Following site investigations, SCDHEC ordered KSCI to install a wastewater treatment system. Early inspections at the Site led to a groundwater monitoring program in 1976 and the discovery of buried drums in 1979.

In January 1979, laboratory equipment at the Site exploded, resulting in a fire. The explosion and fire damaged reactors and vessels containing chemicals in various stages of manufacturing. Chemicals ran off the reactor pad principally to the west and northwest.

Emergency responders used over 200,000 gallons of water and fire control foam to fight the fire on the pad. This fire water, contaminated with organics from the ruptured vessels, also ran off the operations area and pooled in low areas west and northwest of the reactor pad. Site operators recovered the majority of the pooled firewater (contained by an earthen dam) and, pending offesite disposal, held it in tanks, pools and tankers. Due to a plug failure in the wastewater holding pond, some material seeped into the tile field.

SCDHEC analyzed soils at the Site and found high concentrations of benzene, toluene, ethylbenzene and xylenes (collectively termed BTEX), 1,2-dichloroethane (1.2-DCA), acetone, methylene chloride, lead, nickel, and mercury, with especially high concentrations detected in areas which received substantial runoff from the fire and explosion in January 1979.

Groundwater sampling conducted at the Site also detected ethylbenzene, xylenes, 1,2-DCA, acetone and methylene chloride. All of these contaminants had the potential to affect the Floridan aquifer.

SCDHEC initially ordered KSCI to clean up all of the identified contaminated areas. SCDHEC later updated this request and required that the company perform studies to determine the extent of the soil and groundwater contamination and to design cleanup plans.

Following the 1979 explosion and fire, site operators decreased the use of the wastewater treatment system during plant rebuilding and startup. Workers held any washdown or wastewater sent to the pond before pumping it into tankers for offsite disposal. In 1980, following abandonment of the original bentonitelined pond and tile field, KSCI put in a larger, plasticlined holding lagoon. This pond had no discharge but held wastewater for offsite disposal. KSCI used the pond until 1983, when the company ceased operations.

In 1986, KSCI leased the land to a local contractor for storing and staging of heavy equipment, materials, old oil tanks, construction debris and concrete. In 1989, the local contractor left, leaving the Site abandoned and fenced. Due to the presence of contaminants in soils and shallow groundwater, and the potential impact of these contaminants on the Floridan aquifer, the EPA proposed the Site for listing on the National Priorities List (NPL) on September 8, 1983. The EPA finalized the Site on the NPL on September 21, 1984.

The EPA and SCDHEC agreed the state agency would have lead responsibility for the site cleanup.

From 1983 to 1986, SCDHEC pursued the necessary studies and remedial activities with KSCI under a SCDHEC Consent Order. Overall, however, KSCI had trouble meeting schedules and completing work assignments. In an attempt to resolve these difficulties, the EPA's Superfund program assumed lead responsibility for the Site's cleanup in late 1986. The EPA designated KSCI as the Site's Potentially Responsible Party (PRP).

After reviewing the work completed under the SCDHEC Consent Order, the EPA determined the

need for further investigations to determine the nature and volume of the waste, pathways by which contaminants would move or present the risk of exposure to human health and the environment, and the hydrologic relationship between the shallow groundwater and the deeper aquifer. Based on this determination. the EPA entered into an Administrative Order on Consent with KSCI on January 13, 1988, to perform a remedial investigation and feasibility study (RI/FS) at the Site under the EPA's oversight. KSCI completed a removal assessment in August 1992 and an ecological risk and risk/health assessment in January 1993. KSCI provided the EPA with its final RI/FS report in January 1993.

Site Contamination

SCDHEC analyzed the site soils and found elevated concentrations of BTEX, 1,2-DCA, acetone, methylene chloride, lead, nickel and mercury, with the highest concentrations found in areas which received substantial runoff from the fire and explosion in January 1979. SCDHEC shallow aquifer groundwater sampling at the Site also detected ethylbenzene, xylenes, 1,2-DCA, acetone and methylene chloride.

Some or all of the contaminants identified are hazardous substances as defined in § 104(14) of CERCLA, 42, U.S.C. § 9601(14), and 40 C.F.R. § 302.4.

All of these contaminants had the potential to affect the Floridan aquifer.

The primary findings of the remedial investigations included:

1. Source areas of contamination are located in the operations area of the former facility and in the tile field. Chemical runoff and contaminated firewater from the January 1979 explosion and fire, dispersed by surface flow to the areas west and northwest of the operations area, are the sources of one of the contaminant plumes identified at the Site. Operation

of a wastewater treatment system and file field is the source of the other plume.

- 2. Aromatic hydrocarbons, chlorinated hydrocarbons and inorganic metals have affected groundwater in the water table aquifer.
- 3. Aromatic and chlorinated hydrocarbons, semivolatile organic compounds, and metals have affected soils at the operations area.
- 4. A contaminant plume extends about 700 feet northwest of the tile field; a second plume, which partially overlaps the first plume, extends about 550 feet northwest of the operations. The estimated calculated rate of groundwater flow is 20 feet per year in the middle unit and 28 feet per year in the deeper unit of the water table aquifer. However, the estimated leading edges of the plumes are traveling at rates up to 1.5 to 2 times the groundwater flow rate, as indicated by the fate and transport modeling.
- 5. There is clay and silty clay beneath the water table aquifer across much of the study area. The presence of these materials inhibits but does not entirely prevent the vertical migration of the water table aquifer into the deeper Floridan aquifer. Contaminants similar to those in the water table have been detected in the Floridan aquifer beneath the Site.
- 6. The State of South Carolina designated the water table aquifer as Class GB. It is therefore a potential source of drinking water. There is no known use of the water table aquifer within a quarter-mile of the Site, although residents in Beaufort County use the aquifer elsewhere.
- 7. Xylene and ethylbenzene were present below maximum contaminant levels (MCLs) in the water table aquifer in September 1991 at one location just west of the KSCI property line.
- 8. The study area is located within a light industrial use zone and an airport noise zone. Sixty percent of the study area is wetland habitat.

9. The only sources of water to the central ditch are direct precipitation and groundwater discharges during periods of elevated water table conditions. The Site's 1993 Baseline Risk Assessment concluded that future use (residential) human exposure pathways at the Site included: 1) dermal absorption and incidental ingestion of surface and subsurface soils, sediment and groundwater; 2) ingestion and dermal absorption of groundwater; and 3) exposure through inhalation of dust/particulates from contaminated soil and vapors from contaminated groundwater.

IV. Selected Remedy

A Record of Decision (ROD) was signed on September 28, 1993.

The selected remedy in the ROD included:

Mitigating and minimizing contamination in soils and groundwater, and to reduce potential risks to human health and the environment. The EPA determined the following remedial action objectives (RAOs) based on regulatory requirements and levels of contamination found at the Site:

- 1. Prevent or mitigate the release of contaminants that would result in groundwater concentrations at levels above MCLs.
- 2. Reduce risks to human health associated with dermal contact or ingestion of the contaminated soils and inhalation of soil particulates to less than one for chronic hazard index and to between 10 for carcinogens.
- 3. Reduce contaminant concentration in the soil to levels that are safe for environmental receptors that may come in contact with soil contaminants.
- Prevent offsite migration of groundwater containing contaminants above MCLs.
- 5. Prevent ingestion of groundwater from the water table aquifer containing chemicals of concern where

the chronic hazard risk is more than one and the MCL is exceeded.

The major components of the selected remedy are:

Soil

- Excavation and offsite removal of soils.
- Placement of clean soil into the excavation; then grading and seeding to establish a vegetative cover.

Groundwater (pump and treat)

- Extraction of groundwater from the sand aquifer, with restoration of groundwater to remediation goals noted in the selected remedy in the ROD.
- Treatment of groundwater by air stripping to remove organic contaminants and granular activated carbon as a polishing step.
- Storage of treated water on site in an infiltration gallery, spray field or surface water.
- Collection and storing of dewatered solids from the infiltration process on site pending disposal.
- Monitoring of groundwater on site.

Air

- Treatment of air emissions from volatilization as needed to meet ambient air quality standards.
- · Monitoring of air onsite.

V. Description of Significant Differences and Basis for the ESD

Institutional controls in the form of restricting the inappropriate use of groundwater must be implemented at the Site because the remedial action results in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure to groundwater. The remedial action provided in the ROD does not include institutional controls for groundwater. As a result, an explanation of

significant differences is needed to implement institutional controls in the form of a restrictive covenant, controlling and limiting the use of groundwater as part of the groundwater remedy for the Site.

VI. Support Agency Comments

The EPA consulted with the South Carolina Department of Environmental Health and Conservation (SCDHEC) providing the opportunity to comment on this ESD in accordance with NCP § 300.435 (c)(2) and § 300.435 (c)(2)(i) and CERCLA § 121(f). The SCDHEC concurred with this ESD in a letter dated September 15, 2016.

VII. Statutory Determinations

The EPA has determined that these significant changes comply with the statutory requirements of CERCLA § 121, 42 U.S.C. § 9621, are protective of human health and the environment, comply with Federal and State requirements that are applicable or relevant and appropriate to the remedial action, are cost-effective, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

Because this remedy will result in hazardous substances, pollutants, or contaminants remaining on site above levels that allow for unlimited use and unrestricted exposure, a statutory review will be conducted no less often than each five years after the initiation of the remedial action to ensure that the remedy is, or will be, protective of human health and the environment.

VIII. Public Participation

The public participation requirements set out in the NCP § 300.435(c)(2) have been met by publishing this ESD, making it available to the public in the Administrative Record, and publishing a notice summarizing the ESD in a major local newspaper.

IX. Authorizing Signature

I have determined the remedy for the Site, as modified by this ESD, is protective of human health and the environment, and will remain so provided the actions presented in this report are implemented as described above.

This ESD documents the significant changes related to the remedy at the Site. The EPA selected these changes with the concurrence of SCDHEC.

U.S. Environmental Protection Agency

By:

Franklin E. Hill

Director

Superfund Division

Date:

CONCURRENCE PAGE FOR THE KALAMA SPECIALTY CHEMICALS SUPERFUND SITE EXPLANATION OF SIGNIFICANT DIFFERENCES

Document prepared by: EPA Region 4 Remedial Project Manager	Candice Teichert	Date Date
Concur By: EPA Region 4 Site Attorney:	Stedman Southall	9-26-16 Date
Concur By: EPA Region 4 Chief, CERCLA Office of Regional Counsel:	David Clay	9/20/2016 Date
Concur By: EPA Region 4 Section Chief Superfund Division:	Nestor/Young	09/22/2016 Date
Concur By EPA Region 4 Branch Chief: Superfund Division:	Rolland Don Rigger	9/28/16 Date
Concur By EPA Region 4 Director Superfund Division:	Franklin E. Hill	9/20/1 _E



September 15, 2016

Ms. Candice Teichert U.S. Environmental Protection Agency, Region 4 61 Forsyth Street Atlanta, GA 30303

RE:

Kalama NPL Site Beaufort County SCD 094995503 BLWM 051903

Kalama Specialty Chemicals IC ESD, Received September 14, 2016

Dear Ms. Teichert:

The Department has reviewed the above referenced document and approves the Kalama Specialty Chemicals IC ESD as written.

If you have any questions please contact me at (803) 898-0832, jarmankb@dhec.sc.gov or Chuck Williams at (803) 898-0876, williacj@dhec.sc.gov.

Sincerely,

Kayse Jarman, Project Manager

Charles Williams, III

Federal Remediation Section Div. of Site Assessment, Remediation & Revitalization Bureau of Land and Waste Management

cc: Low Country EQC, Beaufort

File #51903

Recovery Function #13: Temporary Housing

PRIMARY AGENCY:

Planning

SUPPORT AGENCIES:

Building Codes, Zoning, Emergency Management, Recovery, County Council, Director Public Services, Zoning, City of Beaufort, Town of Bluffton, Town of Hilton Head, Town of Port Royal, Town of Yemassee,

SCEMD, FEMA, Palmetto Breeze.

PURPOSE: Provides the procedures for temporary housing (site identification, management, etc) following a disaster.

RSF REFERENCE:

ESF REFERENCE:

None

ACTIVITIES TO COMPLETE:

 County staff will conduct annual meetings to pre-identify potential temporary housing sites using site assessment criteria established by the County, that meet FEMA and NEPA requirements.

DISASTER HOUSING POLICY AND PROCEDURES:

- (1) The primary responsibility for providing Federal temporary housing resources and Federal policies following a disaster falls on the federal government, it is in Beaufort County's best interest to have a plan and local policies in place to guide where temporary housing is located, etc..
- (2) In 2011 the Beaufort County Council revised the County Recovery Ordinance to allow homeowners to place one (1) temporary housing unit on their property (that may be occupied by the property owner and his/her family only) in the event that the property owner's house has been damaged. This will allow the property owner to live on-site until such time that the house can be repaired.
- (3). Pre-disaster temporary/emergency housing site identification: sites will be identified that are suitable for placement of temporary housing. The County will focus on using County-owned property and perhaps existing mobile home parks for locating temporary housing developments. This site identification will take place on an annual basis.
- (4) To potentially expand the number of feasible sites the Beaufort County Planning Department will evaluate County passive parks as potential sites by:
 - 1. Documenting water and sewer availability and distances and capacities.
 - 2. Evaluating potential sites in terms of local standards and FEMA livability standards related to FEMA financial support for site development.
- (5) A major aspect of meeting (long-term) temporary housing needs is related to reduction of the number of those seeking (long-term) temporary housing (including temporary housing units on an owner's property).
 - 1. Several coastal communities have reduced the numbers seeking (long-term) temporary housing by planning/implementing "Rapid Repair" programs that speed-up processes to repair homes to meet safety/ building standards.
 - 2. A Beaufort County subcommittee is to be formed to evaluate the effectiveness and feasibility of such a program in Beaufort County.

(6) In a disaster the County Administrator, as Chairman of the Recovery Task Force, will appoint a liaison and subordinate staff to assist and to perform special tasks and to coordinate with Federal and State officials.

Recovery Function #16: Environmental Preservation and Restoration

PRIMARY AGENCY:

Planning

SUPPORT AGENCIES:

Emergency Management, Recovery, Public Works, Records Management, Zoning, City of Beaufort, Town of Bluffton, Town of Hilton

Head Island, Town of Port Royal, Town of Yemassee, DHEC-OCRM,

SCDNR, USACE

PURPOSE: Establishes the post-disaster procedures for preserving and restoring environmentally sensitive areas of the county following a disaster.

RSF REFERENCE: ESF REFERENCE:

ACTIVITIES TO COMPLETE:

Continue to enforce the Zoning and Development Standards Ordinance ZDSO (includes wetlands
protection, buffers, tidal wetland buffers – critical line OCRM), Storm water Best Management
Practices (BMPs) and Rural and Critical Lands Program (promoting open space) to protect
environmentally sensitive areas.

STANDARD OPERATING PROCEDURES:

- Immediately following a disaster, the County Administrator shall designate the Natural Resources Planner to oversee the activities of this Recovery Function.
- Through coordination with RF#1: Impact Assessment (Disaster Assessment), the Environmental Preservation and Restoration Coordinator will be responsible for conducting and maintaining an environmental impact assessment that identifies all areas of the county that have suffered environmental degradation as a result of the disaster, such as damage to forest areas, water quality, and coastal/wetland areas. The environmental impact assessment will also be used to help determine what programs and resources are available to help the county address damages suffered to the environment as a result of a disaster.
- As a result of the environmental impact assessment, the Environmental Preservation and Restoration Coordinator will make recommendations on how to best deal with the impacts of the disaster on the environmentally sensitive areas. The Environmental Preservation and Restoration Coordinator will serve as the County's liaison between federal and state officials concerned with environmental impacts following a disaster.
- The Environmental Preservation and Restoration Coordinator shall coordinate with RF#7: Debris
 Management to ensure that debris operations are not causing further environmental damage
 (such as air quality issues related to burning) and those debris operations are not breaking any
 environmental regulations.
- The Environmental Preservation and Restoration Coordinator will be responsible for pursing any relevant post-disaster federal and state programs and/or funds that can be used to implement environmental projects identified by the county.
- Coordinate with RF#17: Mitigation to ensure that any environmental opportunities, projects or programs that arise as a result of the disaster are incorporated into the mitigation plan. Environmental concerns involving hazardous materials should be coordinated through Emergency Management and DHEC.

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ADD-ONS

The document(s) herein were provided to Council for information and/or discussion after release of the official agenda and backup items.

Topic: Hurricane Matthew Aftermath / Briefing

Date Submitted: October 1, 2016 Submitted By: Eric Larson

Venue: Natural Resources Committee

NRC/PFC briefing 10/17/16

Sunday, October 16, 2016 2:14 PM

Topic: Date Submitted:

Submitted By:

Venue:

Eric Larson

Hurricane Matthew Aftermath / Briefing October 1, 2016

Natural Resources Committee

County Council Briefing 10/17/16

1) Debris Management

- i. As of Friday, all public roads were passable. Crews are addressing "leaners" and "hangers" today. Starting Monday, debris removal will begin with the first of three planned passes of public roads.
 - 1) Through MOA with the SCDOT, the County will clear all state routes within the County. The County Administration is working with the State Delegation to get reimbursement of the non-federal portion of the cost.
 - 2) Through MOA with the CoB, ToB, and ToPR, the County is pushing and removing debris on public roads in these jurisdictions.
 - 3) Through MOA with the ToHHI, the Town is pushing and removing debris on County roads within the Town limits.
 - 4) Our three Debris Management Sites are set up and receiving waste. Disposal by burning cannot be done until approved by DHEC. The three sites are Pickney Point, Illy Farms, and Henry Sod Farm on St. Helena Island.
 - 5) Daufuskie Island Logistics to move equipment there are in the works. CERES was on site Friday scouting needs and debris disposal site. Application to DHEC for the site is being prepared.
- ii. Public Works crews have been working to clear parking at County and School buildings
- iii. Convenience Centers
 - 1) All have power as of Friday.
 - 2) Centers are being limited to household garbage only to prevent overwhelming the staff with woody and C&D debris. These types of debris are being requested to be placed on the edge of the road for contractor pickup. Numerous press releases have been made on this subject. subject. Convenience centers will resume normal operations by closing on Wednesday and reopening on Thursday. A press release will go out stating a continued restriction on accepting yard debris.

iv. Private POA debris

- 1) Per FEMA regulations, the County is prohibited from receiving reimbursement for this work without a MOA in place with the POA. Prior to the Hurricane, only "push" agreements were in place. No POA had signed a "removal" agreement. After the storm, several POAs have contacted the County about assistance to pay for debris removal. We are working with them to establish MOAs and advise on paperwork needs. The County has also sent a letter to SCEMD and FEMA requesting a waiver of the regulation in hopes we can assist the POAs with removal and /or reimbursement more easily.
- v. Cost Public roads only \$5 million for removal, \$4 million for monitoring. Does not include HHI, Daufuskie Island, or private communities that might sign with the County in the future. This estimate is expected to rise.

Damage Assessment

- i. Initial Assessment done. Determined __ structures with minor damage, ___ structures with major damage. Preliminary estimate of damage \$
- ii. Detailed "phase 2" assessment of major damage structures for purposes of "red tagging" them habitable or not and refining damage cost to begin on Monday.
- iii. Based on the initial assessment, the County has received a Federal Declaration for Public Assistance. Individual Assistance is pending based on additional field work by SCEMD and FEMA.
- iv. Permitting responded to temporary electrical permitting needs over the weekend. Other permitting needs and business licensing will continue to occur during normal business hours.
 - 1) Information on business licensing is on the website.

3) Utilities update

- SCE&G (per Brad Samuels) as of EOB Sunday, 57 customers without power, mostly on Daufuskie Islandand the St. Helena Island area.
- ii. Palmetto Elec. 1005 restored as of Saturday 6pm. Exception only to a few scattered customers who have to have repairs made to their property to complete perm power.
- iii. BJWSA All treatment facilities and pump stations have power.
- iv. HHI PSDs no update available

4) Donations and Volunteers

- i. Fred Leyda (BC Human Services Alliance) is working with the local VoAd (Volunteer Organizations Active in Disaster) and PALS to establish a clearinghouse for volunteer groups. He will be setting up an 800 number and/or physical location after a needs assessment is complete.
- ii. Fred Leyda is also coordinating anticipated donations of goods and money.
 - 1) Warehousing space is being procured by Facilities Management
 - 2) Fred is working to establish an organization that can receive and disperse funds.

5) Finance and FEMA documentation

- i. Finance department is ready to assist departments with paperwork needs and will coordinate the SCEMD and FEMA applications.
- ii. Finance is defining a committee made up of all possible applicants (County, Towns, City, Schools, Utilities) to create a single point of contact with SCEMD and FEMA.
- iii. Facilities Management working to find office space with the anticipation FEMA will ask for assistance in setting up a local office for the public and individual assistance.
- iv. An Applicant briefing meeting will be scheduled after the Federal Declarations are complete.

6) Shelters and PODs

- i. The three Red Cross shelters closed down on Friday to free the space for schools to resume on Monday. DSS assisted for the few remaining families in shelter that needed assistance with housing. Shelters being ran by private organizations such as Sea Island Presbyterian Church.
- ii. PALS was running 2 different POD sites on HHI at The Creative Arts School and a site on St. Helena at St. Helena Elementary. Those sites have been closed as of Sunday. Items distributed included water, MREs, baby wipes, pet food, and animal crates.

7) Schools

- i. County assisted the Schools with debris removal from buildings, parking lots. Minor cleanup still needed.
- ii. Power was restored to all buildings including Daufuskie Island school as of Sunday.
- iii. All schools reopened Monday Oct. 17th.

8) Animal Shelter

- i. Resumed normal operations as of Friday.
- HHI Humane Society and County shelter near capacity with animals rescued or surrendered. 300 animals on site at County facility. HHI humane is full.
- iii. Providing food services distribution.

9) Mortuary Services

i. No reported deaths. Approximately 11 caskets had to be recovered and prepared for reburial.

10) Chamber of Commerce

- The Beaufort Chamber of Commerce has agreed to coordinate all other Chamber offices in the County.
- ii. Website provides information to citizens on businesses open to serve needs such as dining, groceries, laundry, and private property debris removal
- iii. The Chambers are preparing to assist businesses with coordinating FEMA assistance.

11) Temporary Housing

- Community Development staff are prepared to assist with interpretations of the CDC, variances, waivers, exceptions, and/or special use permits to allow temporary housing units to be placed on properties with major damage needing repair before being habitable.
- ii. Staff is also ready to coordinate with Fred Leyda, BC Human Services Alliance, to find rental housing for those needing short term temporary housing.

12) Employee Services

- i. Employee needs assessment questionnaires found only a handful of needs. Those were addressed individually without the need to establish an assistance center.
- ii. Counseling services are being provided if requested.
- iii. Payroll is working to assure everyone is paid in a timely manner to relieve any financial burden the storm has caused employees and their families.

13) Communications

- Monica Spells and Josh Riley have been issuing numerous press releases over the past week informing the public about government services such as debris removal.
- ii. The Recovery Website is being updated and will provide a "blog" style information section so that recovery function managers can update recovery status for the public and County Council's information.
- iii. The 211 phone call is operational with public information.

14) CoB -

i. Damage Assessment - completed phase 1 of assessment have approximately 160 properties affected. This is the breakdown on the estimated damage:

•	Minor damage	108	68%
•	Moderate damage	47	30%
•	Major damage	4	2%

Total structures assessed:

159

The addresses with the major damage are:

- 306 Battery Creek Rd
- 504 Meritta Ave (for sale; vacant)
- 1241 Ribaut Rd (vacant)
- 130 N Hermitage Rd
- Debris Removal All roads cleared for passage. Waiting for debris contractor to complete first pass.
- iii. Human Services
 - 1) Contacting those seriously affected to insure their needs are being met.
 - i. Have contacted churches to insure all damages are reported by their members.
 - 2) Will have food bank for those in need at Love Ministry Bowling Lanes on Monday from 1:00 till 3:00. All are welcome.
- iv. Communications Will be publishing information daily on website and City Facebook pages.
- 15) ToB
 - i. The Town has established citizen debris drop off centers in three locations.
- 16) ToHHI
 - i. The Town has established citizen debris drop off centers in three locations.
- 17) ToPR
 - Debris Force Account labor and contractors pushed debris and cleared roads. Have not begun debris removal yet. County will be conducting removal per MOA

Topic: Hurricane Matthew Aftermath / Damage Assessment

Date Submitted: October 17, 2016 Submitted By: Gary James

Venue: Natural Resources Committee

Damage Assessment - Beaufort County

(through 10/17/2016)

(**************************************	, -, ,,				
Location	Parcels Damaged	\$\$ Amount			
Unincorporated Burton/Beaufort	129	\$	4,066,749		
Town Of Port Royal	56	\$	1,782,896		
St. Helena	92	\$	2,526,750		
Sheldon	19	\$	711,330		
Lady's Island	16	\$	9,891,300		
Fripp Island	11	\$	305,300		
Daufuskie	16	\$	2,475,000		
City Of Beaufort	131	\$	6,815,975		
Hilton Head (Initial Businesses)	114	\$	12,244,000		
TOTAL	584	\$	40,819,300		

Topic: Hurricane Matthew Aftermath / Damage Assessment

Date Submitted: October 17, 2016

Submitted By: Gary James

Venue: Natural Resources Committee