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REM III PROGRAM

REMEDIAL PLANNING ACTIVITIES  
AT SELECTED UNCONTROLLED HAZARDOUS SUBSTANCE DISPOSAL SITES  
WITHIN EPA REGIONS I-IV

Superfund Records Center

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FINAL RESPONSIVENESS SUMMARY

YAWORSKI LAGOON SUPERFUND SITE  
CANTERBURY TOWNSHIP  
WINDHAM COUNTY, CONNECTICUT

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## Preface o

The U.S. Environmental Protection Agency (EPA) held a public comment period from July 28, 1988 to August 24, 1988 to provide an opportunity for interested parties to comment on the July 1988 Feasibility Study (FS) and Proposed Plan for the Yaworski Lagoon Superfund site in Canterbury, Connecticut. The FS examines and evaluates various options, called remedial alternatives, for addressing contamination in the lagoon area. EPA identified its preferred alternative for the cleanup of the site in the Proposed Plan that was issued before the start of the public comment period.

This responsiveness summary identifies the significant comments raised during the public comment period, and provides EPA responses to the comments. EPA will consider all of the comments summarized in this document before selecting a final remedial alternative for the Yaworski Lagoon Superfund site.

This responsiveness summary is divided into the following sections:

- I. Background on Community Involvement and Concerns - This section provides a brief history of community interests and concerns regarding the Yaworski Lagoon site.
- II. Summary of Comments Received During the Public Comment Period and EPA Responses - This section summarizes and provides EPA responses to the written and oral comments received by EPA from the public during the public comment period.
- III. Remaining Concerns - This section describes issues that may continue to be of concern to the community during the design and implementation of EPA's selected remedy for the Yaworski Lagoon site. EPA will address these concerns during the Remedial Design and Remedial Action (RD/RA) phase of the cleanup process.

Attachment A - This attachment provides a list of the community relations activities conducted by EPA to date at the Yaworski Lagoon site.

## I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

### A. Site Description

The Yaworski Lagoon site is located on approximately 100 acres of land in Canterbury Township, Windham County, Connecticut. The site consists of a former liquid and industrial waste disposal lagoon situated in a meander loop on the floodplain of the Quinebaug River. Approximately 2000 feet southeast of the lagoon is an operating solid waste landfill owned by the Yaworski family, the same individuals who operated the Yaworski Lagoon. (Refer to Figure 1). In the past, a portion of the adjacent floodplain east and south of the lagoon was used to cultivate silage corn. The remaining area adjacent to the lagoon is composed of wetlands. The nearest residence is approximately 1/2 mile to the west. Plainfield, the nearest adjacent town, is located 3 miles to the east.

Between 1950 and 1973, sludge materials and drums of industrial waste including solvents, paints, textile dyes, acids, resins, and other debris were disposed in the lagoon, which measures approximately 700 feet long by 300 feet wide. Flammable waste was burned periodically at the site until 1965, when the Connecticut Department of Health ordered a halt to the on-site burning of waste. All disposal operations ceased in 1973. By order of the State, the lagoon was subsequently covered by Mr. Yaworski with paper, rags, rubble, and soil. After a fire occurred at the site in 1982, EPA concluded that additional information was needed about the site to better assess the potential threat to human health and the environment. In 1984, the site was added to the National Priorities List (NPL), EPA's list of top priority hazardous waste sites, thus making the site eligible for investigation and cleanup under the federal Superfund program. EPA completed the first of the two Remedial Investigations (RI) in April 1986. In 1987 and in the spring of 1988, additional work was conducted to further define the nature and extent of contamination. As a result of this work, the second or supplemental RI was completed in July 1988. The Feasibility Study (FS), which contains the development and analysis of remedial alternatives, was completed along with the second RI in July 1988.

### B. Community Awareness of the Yaworski Lagoon site

Community awareness generated by past and present activities at the Yaworski Lagoon site has been high. When the site was added to the NPL in 1984, an active local community group called Committee of Correspondence, which was involved in halting an interstate highway in the area, was invited to join the Eastern Connecticut Citizens Action Group (ECCAG). ECCAG, which covers areas east of the Connecticut River, is part of a State-wide citizens organization. Even before the site was placed on the NPL, members of ECCAG and other local citizens believed that the State's plan to cover the lagoon was an inadequate solution for the problems at the Yaworski Lagoon, especially after the fire that occurred in 1982. When EPA placed the site on the NPL, media coverage was extensive.

## C. Concerns

This section summarizes concerns expressed at the FS public informational meeting held on July 27, 1988 and at the public hearing held on August 17, 1988.

### 1. Concerns Relating to the Capping Component of the Proposed Plan

Community members expressed concern regarding EPA's Proposed Plan to cover the lagoon. Instead, some residents would prefer to see the waste excavated and either burned on-site or taken off-site. Many residents have stated their belief that flooding of the area would damage the cap and cause further pollution of the Quinebaug River and surrounding wetlands. Residents have also expressed concern that the cap would not address waste that is being left in the lagoon, and that this waste would continue to cause ground water contamination.

### 2. Concerns Relating to Ground Water Contamination and EPA's Proposal to Set Alternate Concentration Limits (ACLs)

At the public meeting many residents expressed their concern about whether contamination from the Yaworski Lagoon site may have affected their drinking water wells. In response to these concerns, EPA sampled domestic wells along Packer Road just prior to the public hearing and found no contamination. As a result of these findings, citizens asked less questions at the public hearing than at the public meeting, although one citizen expressed skepticism about EPA's results.

Residents have asked EPA how an ACL demonstration would be implemented and whether establishing ACLs would ever make ground water drinkable.

### 3. Risks to Human Health and the Environment

Many citizens have expressed concern about contamination from the lagoon entering the River and the wetlands and posing risks to wildlife in these areas, as well as risks to people who swim or fish in the River.

### 4. Cost and Enforcement

Citizens stated that cost should not be a factor in EPA's decision-making process for choosing a remedy for the site and that the potentially responsible parties (PRPs) should be liable for all current, as well as future cleanup costs at the site.

5. Yaworski Landfill

A number of citizens commented on the Yaworski Landfill that is located near the site. At the public meetings, residents stated that the Yaworski Landfill probably contains hazardous materials and is just as much a threat to the environment as the lagoon. Residents stated that EPA should include the landfill in their investigations. The landfill, however, is not part of the Yaworski Lagoon Superfund site and is also not the subject of this cleanup decision. Questions regarding the landfill should be directed to the CT DEP.

6. Extension of Comment Period

During the presentation of oral comments, and during the question and answer period that followed during the August 17, 1988 public hearing, several citizens requested that EPA extend the comment period. Citizens indicated that more people should be notified and provided with the opportunity to comment on EPA's Proposed Plan.

7. EPA's Decision-Making Schedule

Citizens at the August 17, 1988 public hearing expressed their belief that they should have a chance to respond to EPA's selection of a remedy for the site, before that decision is final.

## II. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES TO THESE COMMENTS

This responsiveness summary addresses the comments received by EPA on the Feasibility Study and Proposed Plan for the Yaworski Superfund site in Canterbury, Connecticut, during the public comment period held by EPA from July 28, 1988 to August 24, 1988. Five written comments were received. In addition, sixteen people presented oral comments at the August 17, 1988 public hearing. Copies of the hearing transcript are available at the information repositories located at the Canterbury Public Library, and the EPA Records Center at 90 Canal Street, First Floor, in Boston, Massachusetts. The written and oral comments are summarized and organized into the following categories:

- A. Summary of Citizen Comments
- B. Summary of Potentially Responsible Party (PRP) Comments

EPA responses are provided for each comment, or set of like comments.

### A. Summary of Citizen Comments

#### 1. Comments Concerning the Cap

##### a. Objections to the Cap

Comment 1: Many people that attended the public hearing do not support the capping component of the preferred alternative and would prefer that the lagoon contents be removed and either incinerated or taken off-site.

EPA Response: EPA evaluated a range of alternatives that, in addition to the selected remedy, included removing and incinerating the waste. Removing the waste from the site was rejected because it would be very difficult to implement. Off-site disposal without treatment would have to comply with the stringent Resource Conservation and Recovery Act (RCRA) land disposal restrictions. Moreover, it would be very difficult to locate a RCRA-permitted facility that would be willing to accept untreated waste from the site. Off-site incineration was rejected due to the low operating capacity at existing off-site facilities.

On-site incineration alternatives were also considered. They were not selected because they would be difficult to implement, may result in adverse short-term impacts when the wastes were excavated and are very costly.

Comment 2: Several commenters questioned how EPA could prove that contamination would not continue to leach into the environment over time and expressed concern about the problems that this contamination would

present to future generations.

EPA Response: An evaluation of how contamination leached from the lagoon was completed and summarized in the supplemental Remedial Investigation. EPA concluded that the impermeable cover will stop rain from washing through the waste and will minimize contamination leaving the lagoon and provide a long-term, protective remedy.

Comment 3: Another resident remarked that capping the lagoon is a "cop-out", and that just because the lagoon would be covered up does not mean people would forget that it exists. He stated his belief that Canterbury is being treated unfairly, and that if Canterbury were a community like Stratford or Stamford the waste would be moved off-site.

EPA Response: Regardless of the size or location of the community in which a site is located, the same remedy evaluation and selection process is followed. Also, EPA is not forgetting about the site. Part of the remedy for the Yaworski Lagoon site includes evaluating the cleanup every five years, as well as providing routine maintenance and monitoring to ensure the cap works properly and the ACLs are not exceeded.

Comment 4: Another commenter asked that EPA remove the waste and re-establish the River, the land, and the wetlands to their original condition.

EPA Response: As discussed above, removing the waste from the site was rejected because it would be very difficult to implement. However, leaving the waste in place and properly containing it with the impermeable cover will be protective of the River, wetlands, and flora and fauna in the area.

Comment 5: Two additional commenters urged EPA to re-evaluate possible cleanup solutions for the site and provide a permanent solution.

EPA Response: EPA will not re-evaluate the cleanup plans for the site, but will review the remedy every five years to ensure protectiveness. The improved cap and dike and ACL will result in a long-term, protective remedy.

#### b. The Cap as an Interim Solution

Comment 6: Several commenters indicated that they felt that capping should proceed as proposed, but that it should be viewed as an interim solution. One commenter noted that although he believes that the only solution to addressing the contamination problem of the lagoon is to remove the waste, he would like to see the cap constructed soon if it will contain the waste.

EPA Response: The selected remedy is not an interim solution. Improving the cap and dike, establishing ACLs and providing long-term maintenance and monitoring at the site is a long-term remedy. Removing the waste from the site was rejected because it would be very difficult to implement.

Comment 7: Another commenter stated his belief, that in the short run, EPA should cap the lagoon. He expressed concern that, if EPA selected the incineration alternative, incineration would have to be conducted on site since there is too much waste to truck to an off-site facility, and that the five years it would take to burn the waste would damage the environment, especially air quality. He proposed that perhaps in a few years a new technology would be developed which could be used to clean up the wastes in the lagoon. Another commenter provided a similar comment, asking how the public can be assured that when cost effective technology does evolve that the proper actions are taken at the Yaworski Lagoon site.

EPA Response: As discussed, alternatives other than the selected remedy including removing the waste and incinerating it were considered and were determined to not be cost effective or practicable at the site. Although EPA does not plan to re-evaluate the remedy, the Superfund law requires EPA to review the remedy at the site every five years to ensure protectiveness.

#### c. Impact of Cap on the River

Comment 8: One commenter stated that EPA and the Connecticut Department of Environmental Protection (CT DEP) believe that the cap is an acceptable alternative because the Quinebaug River is polluted already. She argued that EPA's decision to continue to let leachate seep into the water should not be influenced by the fact that the River already has contaminants in it from upstream. She stated that EPA's goal should be to ensure the cleanup of the entire watershed. She expressed disagreement with what EPA refers to as acceptable standards, and with EPA's approach to minimize or reduce contamination. She stated her belief that EPA should eliminate or put an end to site contamination.

EPA Response: Regardless of the present water quality in the Quinebaug River, the remedy was not selected because the River is already polluted. The cap will greatly reduce contamination that migrates from the lagoon and, along with setting ACLs, ensure that the River water quality is not adversely impacted.

Comments 9 & 10: Another commenter also objected to the cap, noting that when she was a child, one could fish and swim in the River and now one cannot even see the bottom. A third commenter stated his belief that EPA plans to clean up the French River, which is one of the main tributaries for the Quinebaug River. He concluded that it would not make sense to

clean up one of the upstream rivers and then leave the lagoon wastes in place, allowing pollution of the Quinebaug.

EPA Response: ACLs, which will be set for ground water that flows from the site into the River, will consider wildlife in the River and the River's present and future uses. The capped lagoon will not be allowed to adversely impact the River. If adverse impacts to the River result from the capped lagoon, a corrective action plan would be implemented consistent with the Record of Decision and contaminated ground water would be treated or other measures would be taken to ensure protectiveness.

Comment 11: The commenter also questioned the impact on the River of new incinerators being constructed in the area that will use Quinebaug water for cooling processes.

EPA Response: New incinerators that use water from the Quinebaug River are not the subject of this cleanup decision and, therefore, are not addressed here.

#### d. Implementation Issues

Comment 12: Several commenters recalled the flood of 1955 and other floods through the years and argued that the cap could not withstand these floods. Several commenters argued that flooding has caused contaminants to be washed downstream and additional flooding would cause more contaminants to be washed downstream. One commenter stated his belief that the lagoon has actually been flushed out several times as a result of local flooding and asked EPA for an estimate of the percent of the contaminants in the lagoon that have been flushed out and how far downstream these contaminants have gone.

EPA Response: EPA considered the potential for flooding at the site and incorporated this in the development, evaluation, and selection of the remedy. The cap and dike will be constructed to protect against flooding and washout.

As indicated, flooding in the past has contributed to contaminant moving from the lagoon. Although an exact estimate of how much waste has been flushed out by flooding cannot be made, contaminant migration was recognized as a problem and will be addressed by the selected remedy. Both the cap and dike will be built to withstand water velocities that could occur during floods.

Comment 13: One commenter asked what type of material would be used to construct the cap and how long the liners of the cap would last.

EPA Response: The cap will be made of five layers of materials: a top vegetative cover to protect against erosion and flood damage; a drainage

layer to move rainwater off the cap and away from the waste; two low-permeability layers (a liner and a low-permeability soil layer) to stop rainfall from flowing into the waste and; finally, a foundation/bedding layer to support the layers above.

The liner will be made of a plastic that is very resistant to chemicals. It should last at least 30 years. Also, it will be maintained to ensure it continues to work after it is installed.

Comment 14: One commenter asked whether the two-year estimate for construction of Alternative #3 in the Proposed Plan is for initiation or completion of the cap. He also asked if the estimated \$2,9 million covers the cost of thirty years of monitoring and which agency would be responsible for overseeing the monitoring.

EPA Response: The two-year estimate for construction of the cap is from start to finish. The estimated cost of \$2.9 million covers construction, maintenance costs and 30 years of monitoring. If the governments conduct the remedy, CT DEP will be responsible for overseeing both the monitoring and any maintenance requirements beginning one year after the cap has been installed.

Comment 15: One commenter indicated that if EPA covers the lagoon with a cap that is topped by dirt and vegetation, it will look like a natural landscape and moles, mice, and groundhogs would punch holes in the cap.

EPA Response: When the cap is completed and vegetation has been established, the cap will look like a natural, small hill. As part of its routine maintenance, pests that could damage the cap will be controlled.

Comment 16: One commenter added that no one can know what will happen in one-hundred years, and that someone may decide to develop the area near the lagoon. He wondered how future development might impact the cap.

EPA Response: As part of the remedy, permanent notices will be provided to the appropriate State or local authority that indicate that a waste disposal site is present. No development will be allowed in the future at the site that might damage the cap. Additionally, ground water use will be restricted to ensure contaminated ground water is not used around the site.

Comment 17: One commenter noted that, in ecological terms, 30 years for monitoring of the cap is not a long time.

EPA Response: The 30 years of monitoring of the cap provides a common timeframe to compare different alternatives and allows engineers to develop cost estimates. As long as the cap is in place, it will be

maintained and appropriate monitoring will be conducted. Also, the Superfund law requires that the cleanup be evaluated every five years to ensure it continues to be protective.

2. Comments Regarding the Testing of Ground Water and Alternate Concentration Limits (ACLs)

a. Ground Water Monitoring, Including Monitoring of Domestic Wells

Comment 1: One commenter indicated that it is difficult to judge the results of residential well testing based on one round of sampling and stated that he is not confident in EPA's testing results from home wells on Packer Road. He stated his belief that the lagoon contents will continue to seep out and threaten local drinking water. He also stated that he believes the cleanup will take a long time, regardless of whether EPA caps the site or incinerates the wastes, and that the ground water could become more contaminated over this time period. He requested that EPA consider installing a waterline connecting Canterbury to the Town of Plainfield's water supply, and make this part of the remedy.

EPA Response: The testing EPA did on the residential wells along Packer Road and South Canterbury Road showed no contamination from the lagoon. Also, testing done previously by the Connecticut Department of Health showed no contamination.

When the site is properly contained by the cap and monitored, the movement of contamination from the lagoon will be greatly reduced. Also, the cap will ensure that ground water will not become more contaminated in the future.

Because home wells are not contaminated and EPA believes they are not threatened by the site, installing a waterline or providing some other type of alternative water supply in the area is not part of the Yaworski Lagoon site cleanup.

Comment 2: One resident wanted to know the names of the people whose wells were tested and why his well was not tested.

EPA Response: The results of all the home well tests are available for public review in the Administrative Record for the site at the Canterbury Public Library and at EPA's Record Center at 90 Canal Street in Boston. The names of the people whose wells were tested were not given out to protect their privacy.

EPA's hydrogeologist identified a representative number of wells along Packer and South Canterbury Roads, based on their location and well type, that would show if any problems existed. Because no problems were found, EPA determined that testing all the wells was not necessary.

Comment 3: One commenter noted that most of the ground water sampling at the site was conducted in the spring. The commenter stated that Figure 5-15 of the RI shows that the highest level of contamination was found in Well B. The commenter expressed concern that contaminated water may be washed away from the River or underneath the River, particularly in the fall when the pressure in the aquifer is low.

EPA Response: Ground water sampling and analysis was done in the fall, as well as the spring. The testing done in the fall is summarized in the initial RI completed by NUS. Regardless of the season, EPA believes that, based on water elevation measurements, ground water flows to the Quinebaug River.

Comment 4: One commenter objected to the Agency's use of the terminology "acceptable levels of contamination in drinking water." She pointed out, along with another commenter, that humans are not the only creatures ingesting the water in the area; there are animals drinking water from the River and the wetlands. She stated her belief that there are no levels of contamination in ground water that should be considered to be acceptable.

EPA Response: In its decision to cap the site and establish ACLs, EPA considered the environment, as well as human health. The "acceptable levels" mentioned are standards set to ensure that drinking water is safe to drink and that ambient water is safe for animals and the environmental.

Comment 5: One commenter requested that EPA monitor wells periodically, such as every spring, to make sure that the ground water continues to be safe for those in the surrounding area with home wells.

EPA Response: A number of monitoring wells around the site will be tested periodically to ensure that the ACLs are not exceeded and to ensure that contamination is not moving toward drinking water wells. However, home wells will not be monitored.

Comment 6: One commenter asked how frequently ground water testing would occur, and who would perform the tests. He also asked what the results of the tests completed to date have been.

EPA Response: Ground water testing will occur quarterly. It will be conducted by either EPA, the CT DEP or a qualified testing company hired by the responsible parties at the site. If the responsible parties do the testing it will be closely monitored by EPA and the CT DEP.

All test results completed to date are summarized in the Remedial Investigation Reports. These reports are in the Administrative Record and are available for public review.

Comment 7: One commenter asked what the depths of the wells were that EPA tested south of the site. He asked if the depths reach into the recognized aquifer.

EPA Response: EPA's wells south of the site were installed into every part of the aquifer: near the top of the water table, in the middle and, finally, in bedrock. They were installed at depths from approximately 15 feet mean sea level to approximately 90 feet mean sea level.

b. Alternate Concentration Limits (ACLs)

Comment 8: One commenter asked if establishing ACLs would ensure an end to contamination at the site and whether the ground water would ever be drinkable.

EPA Response: ACLs will not end contamination at the site. Within the River meander ground water will not be drinkable. However, beyond the River meander, where home wells are, the ground water will continue to be drinkable.

Comment 9: One commenter asked if ACLs will be established upstream. The commenter asked how ACLs compare with concentrations established for public water supplies and whether ACLs will be established between the site and the landfill or down-river from the landfill.

EPA Response: ACLs are a set limit for chemicals in ground water. They will be established for ground water within the River meander. Upstream of the site and to the north outside of the River meander ground water is drinkable and, therefore, the standards for drinking water set under the Clean Water Act and Safe Drinking Water Act apply. ACLs are generally set at higher concentrations than those established for public water supplies.

Comment 10: One commenter asked what EPA means when the Agency says that if ACL's are exceeded, ground water use at and near the site will be restricted. The commenter asked what agency would have the jurisdiction to enforce the ACLs. The commenter also asked what corrective action measures would be taken if ACLs were exceeded.

EPA Response: Part of the process of setting ACLs is to restrict ground water use around the site. The ACL does not have to be exceeded to require these restrictions. EPA, the CT DEP, and the CT Department of Health will enforce the ACLs.

If ACLs are exceeded and EPA determines that corrective action is necessary, ground water may be pumped from the ground and treated. The pump and treatment system that would be as specified in the Record of Decision.

### 3. Costs, Liability, and Enforcement Issues

#### a. Costs

Comment 1: One commenter stated his belief that EPA's primary motivation in choosing the preferred remedy is that it is the least expensive. Another commenter argued that cost should not be considered at all when choosing the cleanup option. A third commenter said it would not be fair to leave the landfill mess to our grandchildren for the sake of money.

EPA Response: Cost is one of nine criteria that EPA considers when selecting a remedy. EPA does not necessarily select the lowest cost alternative that it can and, in fact, did not at the Yaworski Lagoon site. Also, cost is not considered until an alternative remedy has been shown to be protective of human health and the environment and in compliance with other applicable or relevant and appropriate federal and state environmental laws and regulations (ARARs).

Comment 2: One commenter stated that EPA has indicated that the State and the Town are going to have to assume the cost of the cleanup and asked whether that means that the federal government does not have funds available for the cleanup.

EPA Response: EPA, through the Superfund program, pays for cleanups if the work is not done by responsible parties. If EPA pays for the cleanup at the Yaworski Lagoon site, the Agency will fund 90% of the costs. The State would pay the other 10%. The Town would not have to pay for the work or the long-term maintenance that follows.

#### b. Liability

Comment 3: One commenter stated her belief that Mr. Yaworski has made millions of dollars from the lagoon and should be responsible for paying for removal of the wastes from the site.

EPA Response: Mr. Yaworski and a number of other parties have been noticed by EPA that they are potentially responsible for the cleanup of the site. EPA will negotiate with Mr. Yaworski and the other parties to pay EPA's past costs and to implement the remedy.

Comment 4: One commenter indicated that he believes the cleanup will be a long-term process and that the responsible parties should be required to post a bond to protect people in the Town from any costs or further damages that may be created if the cap does not work or the cleanup takes too long. Another commenter also expressed concern that the cap is just an interim solution and that responsible parties should be held liable

now for any future costs of cleanup. This commenter argued, that in ten years, the responsible corporations may not exist.

EPA Response: EPA will begin negotiations shortly with the potentially responsible parties to determine their willingness and ability to conduct the remedial action at the site. During the course of these negotiations, future liability of the parties will be discussed.

Comment 5: One commenter was interested to know who, in addition to the Yaworskis, is responsible for the contamination in the lagoon. She asked if the CT DEP allowed disposal of wastes in the lagoon to occur.

EPA Response: InterRoyal Corporation; Kaman Aerospace Corporation; Pervel Industries, Inc.; Triangle PWC, Inc.; Rogers Corporation; C & M Corporation; and, Revere Textile Prints Corporation are also considered potentially responsible parties. CT DEP did not issue a hazardous waste facility permit for the Yaworski lagoon facility allowing waste disposal.

### c. Enforcement

Comment 6: One commenter stated his belief that the federal and State laws that are in effect are not strict enough because these laws should not permit a dump to continue to exist by the side of a River. He commented that the River and surrounding area is an essential place for wildlife to live and eat.

EPA Response: An uncontrolled waste dump like the Yaworski Lagoon could not be built today because of recent changes in federal and state environmental laws that provide much stricter controls on how hazardous wastes are managed.

Although it is located by the Quinebaug River, capping the site and setting ACLs will be protective of both human health and the environment.

Comment 7: Another commenter stated her belief that there is no control over businesses such as the Yaworski Lagoon because of the free enterprise system. She stated that her understanding of the free enterprise system, however, is that it is free until it causes harm or it invades other people's property. She concluded that the officials in charge of the Yaworski Lagoon site are more concerned with Mr. Yaworski's checkbook than with other people's freedom.

EPA Response: Although cost was a factor in selecting the cleanup plan, no consideration was given to Mr. Yaworski or his finances in the remedy selection process.

Comment 8: One commenter expressed his disappointment with what he believes is a lack of enforcement conducted by the State of Connecticut

with regard to the Yaworski Lagoon site.

EPA Response: The CT DEP has been active in enforcement activities at the Yaworski Lagoon site. In 1976, the CT DEP ordered Mr. Yaworski to install monitoring wells at the site. In 1980, the State ordered that a study be completed on environmental damage that the site was causing. And, finally, in 1982, the CT DEP ordered Mr. Yaworski to close the lagoon.

4. Risks Posed to Human Health and the Environment

a. Health Risks

Comment 1: Residents argued that, with the improved cap and dike, contaminants would continue to enter the River and present risk to people who fish or swim in the River. Several commenters noted that they no longer eat the fish from the River for fear that it is contaminated. One resident asked to know how many times one has to swim in the River before one's health is affected.

EPA Response: The improved cap and dike will stop rain water from washing chemicals from the lagoon and will minimize contamination that enters the River and ensure that the Yaworski Lagoon site does not contribute adversely to River water quality. Additionally, contamination levels have not been increased in the River due to the lagoon. Because of this, EPA believes the site will not harm fish or make it dangerous for people to swim in the River.

Comment 2: One commenter stated that there are three people who have lived or worked in the area near the dump who have cancer. She noted that a report issued from EPA several years ago stated that people's health in the site area is fine, and that no danger exists from drinking water from residential wells. The citizen asked why EPA did not investigate the number of cancer cases in the area as part of their studies.

EPA Response: A study of the number of cancer cases in an area around Yaworski would have been considered if EPA believed people had been exposed to cancer-causing chemicals from the lagoon. No study was done because there is no indication that the ground water people use is contaminated and there is no other exposure to chemicals from the lagoon.

b. Environmental Risks

Comment 3: Several commenters expressed concern that EPA had not conducted any fish sampling. These residents wanted to know if the fish in the Quinebaug River are contaminated. Several residents noted that they are concerned about contamination in the Quinebaug River because there is an anadromous fish (fish that swim upstream in rivers from the

ocean to breed in fresh water) restoration plan. These commenters believe that leaving the contamination in the lagoon poses a threat to the fish.

EPA Response: A fish sampling and tissue analysis was not done by EPA. However, benthic/macro-invertebrate sampling was done and the results showed that the site does not adversely impact these species. Additionally, fish sampling and tissue analysis was conducted by ERT, an environmental engineering firm hired by the responsible parties. Their results indicated the site is not adversely impacting fish.

In the development, evaluation, and selection of the remedy, EPA did consider the anadromous fish restoration plan for the River. When ACLs are set and as part of the river monitoring program outlined in the selected remedy, the protection of anadromous fish will be addressed.

Comment 4: One commenter noted that page 6-32 of the Remedial Investigation states that anadromous fish may spawn in the wetlands near the Quinebaug River. This commenter remarked that this statement detracts from the credibility of the study because there have not been anadromous fish in that part of the River for 150 years.

EPA Response: The Remedial Investigation should have stated if anadromous fish are re-established, the wetland may serve as a spawning ground and nursery.

Comment 5: Several commenters indicated that the organisms in the wetlands would be harmed by the continued migration of contaminants from the lagoon. One commenter requested that EPA remove the waste from the lagoon area and try to restore the wetlands to their original condition.

EPA Response: Migration of contaminants from the lagoon to the wetlands could continue and harm organisms if no action was taken. However, the improved cap and dike will stop the contaminated leachate that causes the contamination that flows to the wetland.

Although the wetlands may be contaminated with some elevated levels of metals in the sediments, removal of the sediments would be ecologically destructive and was therefore not included in the remedy.

## 5. Community Relations Issues

Comment 1: One citizen argued that the comment period should be suspended or postponed for 90 days so that EPA can make another presentation to the residents of Canterbury so that they better understand what EPA plans to do. In particular, the commenter stressed that EPA needs to better explain the ACLs and the long-term levels at which they will be established.

EPA Response: EPA will not postpone the selection of the remedy or extend the public comment period. EPA explained the ACL process and answered questions about it at the public meeting on July 27, 1988. Additionally, EPA made available the Administrative Record, including the Remedial Investigation and Feasibility Study Reports and other background documents, on July 27, 1988. EPA believes that the four-week public comment period on the Proposed Plan was appropriate and allowed for meaningful public involvement.

During the design of the remedy and when the ACLs are set, EPA will conduct informational meetings and provide fact sheets on the progress of the work, and solicit public input.

Comment 2: One commenter noted that the Proposed Plan does not, but should, include provisions for sending the Town copies of the annual site inspection reports, ground water monitoring reports, and the five-year site appraisal reports.

EPA Response: Although the Proposed Plan does not include those provisions, the reports mentioned will be added to the Administrative Record for the site, as soon as they are completed and will be made available at the Canterbury Library, the information repository for the site.

Comment 3: One commenter asked how the final selection of the site cleanup will be made, and who will make the decision.

EPA Response: The final selection of the cleanup plan is made by EPA's Regional Administrator in Boston. The decision is made based on a review by the Regional Administrator of the reports and studies completed for the site, and the other supporting documents found in the Administrative Record. Additionally, the comments received from the public and EPA's responses are also considered in the decision.

Comment 4: One commenter explained that several years ago, EPA had sent her a letter regarding some wells they would be installing on her property. She said that she called to complain and EPA constructed the wells next door, instead. She pointed out that EPA never sent any information explaining why the wells were being installed in the area, and what the results of the sampling were.

EPA Response: EPA's Project Manager for the Yaworski Lagoon site is available to answer any questions about wells installed to characterize the site and to explain the results of sampling. Also, all the data collected is summarized and explained in the reports found in the Administrative Record.

In the case discussed above, EPA probably installed the wells on the other property because of schedule constraints that the Agency faced

during well drilling operations and simply wished to avoid delays that could have been caused if access was denied by the first homeowner.

Comment 5: Two commenters asked why EPA had not notified every household in Canterbury of the problem associated with the Yaworski Lagoon site. These commenters stated their belief that EPA has not provided adequate notice to Canterbury residents. The commenters explained that they are new to the area and, because they were unaware of the situation regarding the site, they could not request to be added to EPA's site mailing list.

EPA Response: EPA provided appropriate notice of the cleanup plans to residents. EPA placed a public notice in a local paper, the Norwich Bulletin, in July, prior to the public meeting. In addition, the Proposed Plan was sent to everyone on the site mailing list, including local papers and radio stations.

6. Other Issues:

a. River Diversion

Comment 1: One commenter asked why there was no alternative in the Proposed Plan recommending a river diversion. The commenter stated that under a river diversion plan, the meander could be eliminated by putting a straight channel through the area, thus isolating the lagoon.

EPA Response: With proper flood protection, the River will not cause a problem at the closed Yaworski lagoon. Diverting the River is not necessary. In addition, it would cause ecological damage to divert the River and would be very expensive.

b. Zoning

Comment 2: One commenter noted that zoning in the Town of Canterbury presently would permit development on the site. The commenter stated that the Proposed Plan should at least state that the zoning regulations in Canterbury have to be changed to prevent development on the site property in the future.

EPA Response: The remedy for the site includes a requirement that notices that provide a record of the type, location, and quantity of hazardous wastes disposed in the lagoon, be submitted to the appropriate authority in Connecticut with jurisdiction over land use. No development will be allowed at the site in the future that could disturb the cap or impact its performance.

c. Mistake in FS

Comment 3: One commenter pointed out that page 8-2 of the FS states that the possibility of a total washout of the lagoon exists. However, the commenter stated, the report does not address how EPA plans to address the possibility of a washout.

EPA Response: Floods could erode the present cover and wash contaminants into the River. The improved cap and dike will be designed, constructed, and maintained to protect against damage caused by flooding and will prevent wastes from being washed into the River. In the development of the remedy, EPA reviewed FEMA data on flooding along the Quinebaug River and also estimated flood water speed. This information was used to develop the specifications for the materials used in the cap and dike, and how they would be built.

d. Contingency Plan

Comment 4: One commenter argued that there should be a contingency plan developed in case the cap fails.

EPA Response: A maintenance plan will be prepared for the cap and dike to ensure it does not fail. Under this plan, the cap and dike will be inspected periodically and any necessary repairs will be made. Additionally, a corrective action and contingency plan will be prepared to address any exceedance of ACLs.

e. Yaworski Report

Comment 5: One commenter claimed that Mr. Yaworski and some of the chemical companies that are considered to be potentially responsible parties developed a paper on incineration and asked why it should not be adopted. The commenter stated that this document was presented to EPA prior to EPA's proposal being released to the public.

EPA Response: The report on incineration prepared for the PRPs is part of the Administrative Record for the site. EPA considered information from the report when the Agency developed the Proposed Plan and when it selected the remedial action.

f. Property Values

Comment 6: One commenter asked if it is fair for the value of her property to decrease since she owns land near the dump, while other residential property continues to increase in value. She asked if there is any provision in the Proposed Plan that would ensure that her land will regain its value someday.

EPA Response: No, there is no provision in the Proposed Plan or in the Superfund law that addresses property values.

Comment 7: One commenter suggested that a waterline connecting Canterbury to Plainfield would ensure that property values near the Yaworski Lagoon site are not threatened.

EPA Response: Because home wells are not contaminated, there is no need for an alternate water supply such as a waterline. EPA does not take action under Superfund authority to ensure property values.

Comment 8: One commenter asked why his taxes are not decreasing if his property value is decreasing due to the dump.

EPA Response: Property taxes are a local issue outside of the jurisdiction of EPA.

g. Interagency Coordination

Comment 9: One commenter asked why EPA did not follow CT DEP's recommendation several years ago to place a partial cap on the lagoon. He argued that if a decision had been made then to cap the site, the contamination problem would not be as great today.

EPA Response: The lagoon was capped in 1982 as a result of an order from CT DEP to Mr. Yaworski. The decision by EPA to improve the cap and dike and set ACLs is based on studies completed in 1988. Until these studies were completed by EPA, an informed decision on a protective remedy could not be made.

## B. Summary of Potentially Responsible Party (PRP) Comments

This section outlines the major comments received by EPA on the Yaworski Lagoon site RI, FS, and Proposed Plan by ERT. ERT has been hired as a consultant by the Yaworski Lagoon site PRP Committee and submitted comments to EPA on behalf of the committee. Two other comments were received from (1) Triangle PWC Inc., and (2) Hinckley, Allen, Snyder & Comen (on behalf of Pervel Industries) endorsing the comments submitted by ERT.

ERT stated that the proposed remedy is technically sound, protective of human health and the environment, and cost effective. The proposed remedy is consistent with and supported by the data collected by EPA's consultants as well as data collected and analyzed by ERT. ERT believes EPA's proposed remedy is appropriate because it addresses the major sources of site contamination and potential exposure pathways.

ERT also stated that the proposed remedy satisfies the seven technical criteria which are utilized to assess the applicability, feasibility and cost-effectiveness of the potential alternatives by: protecting public health and the environment; complying with ARARs, providing long- and short-term effectiveness; by reducing mobility; and by being reliable and cost effective.

ERT concurs with ATSDR's conclusion that "The Yaworski site does not pose a public health threat at this time."

### 1. Comments on the Remedial Investigation

Comment 1: ERT stated that a review of the mass flux calculations completed in the RI conducted by E.C. Jordan indicates that they represent worst-case conditions that would seldom occur in the lagoon. ERT concluded that, consequently, contaminant contributions to the ground water calculated in the RI are overestimated.

EPA Response: The mass flux calculations were developed using peak values and represent worst-case conditions. However, this does not necessarily overestimate contaminant contribution to the River and is an appropriate check to ensure that an ACL can be used a part of a protective remedy.

Comment 2: ERT stated that the RI conducted by E.C. Jordan mischaracterizes the nature of the wetland. The primary habitat/ecosystem functions of the wetland are related to emergent, wetland vegetation as shelter and food for terrestrial organisms, especially birds which would have only limited contact with the surface water. This type of wetland is flooded during vernal high river flows, and standing water is present in the wetland only one third of the time. Under these conditions, persistent aquatic invertebrates are restricted to those which can survive in moist sediments or which can complete the aquatic portion of their life cycles within a few months. Aquatic organisms are, therefore, not major components in this area. An argument

for endangerment should be based on organisms which are structurally and functionally important to the system. ERT expressed the belief that there is no risk to aquatic organisms in the wetland.

EPA Response: Because of the variability of water levels in the wetlands, the wetlands probably act at times as primarily an aquatic environment and at other times as a terrestrial one. Regardless of this, the continued contaminant loading via leachate from the lagoon would cause environmental harm and there may be an imminent and substantial endangerment to the environment.

Comment 3: ERT stated that the surface-water results obtained by ERT are consistent with the results reported by NUS in the first RI conducted at the site, with the exception of selected metal analysis. ERT added that the differences in the two sampling rounds, however, may be a function of different sampling conditions and different analytical laboratories and are not significant.

EPA Response: EPA agrees that the surface water results obtained by ERT are consistent with previous results; however, variability is probable due to true variance in contaminant levels in the surface water, in addition to sampling and analysis differences.

Comment 4: ERT stated that fish sampling data gathered by ERT support the conclusion that the site appears to have no measurable effect on the quality of the fish in the River.

EPA Response: EPA believes that ERT data support the conclusion that the site presently appears to have no measurable effect on the quality of fish in the River.

## 2. Comments on the Feasibility Study

Comment 1: ERT argued that significant human health risks may be associated with the excavation of the lagoon. Removal of the existing cap that covers the lagoon will result in a release of volatile, and possibly liquid, contaminants from the lagoon. ERT pointed out that potential exposure to the contaminants would include inhalation of volatile contaminants, direct contact with waste material and inadvertent ingestion of the contaminated media.

EPA Response: EPA concurs that excavation of the waste from the lagoon could result in some short-term impacts, including some risks to human health particularly to on-site workers.

Comment 2: ERT stated that because the ground water at the Yaworski Lagoon site contains a variety of different compounds, a single ground water treatment technology may not effectively remove all contaminants

from the site ground water. ERT concluded that a single treatment technology is not necessarily more cost effective than two different technologies in combination (i.e. steam-stripping and ultraviolet radiation/ozonation).

EPA Response: If ground water needs to be treated at the site as a result of the corrective action program, during design of the treatment system, different process options, including a combination of technologies, will be considered.

The process presented in the Feasibility Study Report in Alternative # 4 is one possible process configuration that could be utilized and was presented to serve as the basis for costing and for comparison to other alternatives. During design of the remedy, the particular technology or technologies selected will be dictated by the performance goals that EPA sets for the treatment system.

Comment 3: ERT stated that the rationale for the well placement is ambiguous and not clearly supported by E.C. Jordan's calculations. It is not clear whether the proposed pumping system will capture all contaminated ground water in the alluvium (clay, silt, sand, and gravel) beneath the lagoon.

EPA Response: The proposed pumping system is intended to capture contaminated ground water that flows from the site. The exact well locations will be further refined in the development of the corrective action program.

### III. REMAINING CONCERNS

During the public comment period, at the public informational meeting held in Canterbury on July 27, 1988, and at the informal public hearing held on August 17, 1988, local residents discussed issues that may continue to be of concern during the design and implementation phases of EPA's selected remedy for the Yaworski Lagoon site. These issues and concerns are described below:

(A) Design and Effectiveness of the Cap

Citizens have expressed concern regarding the specific design components of the cap, and regarding the effectiveness of the cap in preventing contamination from leaching into area ground water, the Quinebaug River, and the wetlands.

(B) Results of Ground Water Monitoring Tests

Citizens expressed interest in receiving updates regarding results of ground water monitoring tests.

(C) Five-Year Site Reviews

A number of citizens who view the cap as an interim solution expressed an interest in receiving updates of EPA's five-year reviews of the Yaworski Lagoon site, and any information regarding new technologies that could be utilized at the site to completely destroy the wastes in the lagoon.

To address these concerns, EPA will make available all design documents, testing results, and summary reports of the five-year site reviews. This information will be made available at the Canterbury Library. Additionally, EPA will hold public meetings and send out fact sheets to explain the progress at the site.

**ATTACHMENT A**

**COMMUNITY RELATIONS ACTIVITIES  
YAWORSKI LAGOON SITE  
IN CANTERBURY, CONNECTICUT**

Community relations activities conducted by EPA at the Yaworski Lagoon Superfund site to date have included:

- o December 1984 - EPA held a public meeting to discuss the workplan for conducting remedial activities at the site.
- o June 1985 - EPA released a community relations plan describing citizen concerns about the site and outlining a program to address these concerns and to keep citizens informed about and involved in site activities.
- o May 1986 - EPA established information repositories at the Canterbury Library and the Selectmen's office.
- o May 1986 - EPA released a fact sheet explaining the results of the initial RI activities occurring at the site.
- o May 21, 1986 - EPA held a public meeting in Canterbury to explain the results of the initial RI.
- o July 1988 - EPA mailed the Proposed Plan announcing EPA's preferred alternative for the Yaworski Lagoon site to all those on the site mailing list.
- o July 1988 - EPA issued a public notice to announce the time and place of the upcoming FS public informational meeting and to invite public comment on the FS and Proposed Plan.
- o July 27, 1988 - EPA held a public meeting in Canterbury to discuss the results of the FS and Proposed Plan.
- o August 5, 1988 - EPA sent a letter to citizens on the mailing list announcing EPA's intention to test 15 home wells along Packer Road and South Canterbury Road on August 8, 1988.
- o July 28, 1988 to August 24, 1988 - EPA held a four-week public comment period to accept comments on the Proposed Plan, on the other alternatives considered in the Feasibility Study Report, and on the other documents that are contained in the Administrative Record for the site.
- o August 17, 1988 - EPA held an informal public hearing in Canterbury to accept oral comments on the remedial alternatives evaluated in the FS and Proposed Plan. EPA also explained the results of the home well tests taken on August 8, 1988, and provided the public with a fact sheet explaining these results.

September 26, 1988

Kathleen James  
Community Relations Coordinator  
U.S. Environmental Protection Agency - Region I  
JFK Federal Building  
Boston, MA 02203

Subject: REM III - EPA Contract No. 68-01-7250  
Work Assignment No. 105-1147  
Yaworski Lagoon Superfund Site  
Canterbury, Connecticut  
Final Responsiveness Summary

Dear Ms. James:

EBASCO Services Incorporated is pleased to submit this final responsiveness summary for the public comment period held from July 28, 1988 to August 17, 1988 to receive comments on EPA's Proposed Plan for the Yaworski Superfund site in Canterbury, Connecticut. Responses to public and PRP comments were provided by EPA and incorporated into the draft final document by ICF. Final comments were incorporated into the document by EPA.

If you have any questions regarding this submittal, please contact me at 451-1201 or Margaret Barrett, the REM III community relations specialist for this site at 723-3860.

Very truly yours,



Russell H. Boyd Jr., P.E.  
REM III Regional Manager  
Region I  
EBASCO Services, Inc.

encl.

cc: N. Barmakian (w/o encl.)  
J. Gallagher  
M. Barrett  
J. McAdoo  
FILE: YAWORSKI

Ms. Kathleen James  
September 26, 1988  
Page 2

ACKNOWLEDGEMENT OF RECEIPT

Ms. James, in keeping with our contractual requirement to monitor deliverables please acknowledge receipt of this Final Responsiveness Summary for the Yaworski Lagoon Site in Canterbury, Connecticut and return this enclosure to: Russell H. Boyd, Jr., Ebasco Services Inc., 211 Congress Street, Boston, Massachusetts 02110.

\_\_\_\_\_  
Signature of Recipient

\_\_\_\_\_  
Date