

Comments of

Frescati Shipping Company Ltd., and
Tsakos Shipping & Trading S.A.,
Respectively, the Owner and Manager
Of the M/T *Athos I*

To The

DRAFT Damage Assessment
and Restoration Plan and Environmental
Assessment -- January 2009

Prepared Following The November 26, 2004
M/T Athos I Oil Spill on the Delaware River
Near Paulsboro, NJ

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February 20, 2009

I. Introduction.

The following comments are being submitted to the *DRAFT* Damage Assessment and Restoration Plan ("DARP") for the M/T Athos I oil spill incident on behalf of Frescati Shipping Company, Ltd, the Owner, and Tsakos Shipping & Trading, S.A., the Manager, of the M/T *Athos I*. Collectively here, for purposes of the Oil Pollution Control Act of 1990 ("OPA"), 33 U.S.C. § 2701 *et. seq.*, the Owner and Manager will be referred to as the "Responsible Party" or "RP".

To the extent the *Draft* DARP does not embody the final findings, interpretations and conclusions of the federal and state Trustees, we offer these comments in the spirit of cooperation, in the hope that they will assist the Trustees in developing a final DARP that reflects the reasonable views and interpretations of all participating parties and is consistent with empirical data collected during the Natural Resource Damage ("NRD") preassessment and assessment processes. If the *Draft* DARP is intended to reflect the final findings, interpretations and/or conclusions of the Trustees with respect to the NRD assessment process, we offer these comments with the request that the process be re-opened so that the views and opinions expressed herein may be taken into account in an amended DARP. In either event, we offer these comments in formal supplement of the Administrative Record and respectfully request that they be added to, and made a part of the NRDA record for the M/T *Athos I* spill event.

Should the Trustees decide for any reason not to include this submission as part of the Administrative Record for this NRDA, we respectfully request that we be notified of that decision and the basis for it.

* * *

The RP will begin its comments to the *Draft* DARP by reviewing what it perceives to have been the cooperative and non-cooperative aspects of this NRD Assessment ("NRDA") process.

In the days, weeks and months immediately following the incident, the Trustees and RP moved in fairly typical, cooperative fashion in implementing the NRDA process. The respective technical and legal representatives for the RP and the federal and state Trustees met regularly at formal meetings and/or in the field and held numerous telephone conferences. A draft RP/Trustee Memorandum of Agreement to formalize the cooperative NRDA process was under negotiation even as preassessment activities began in the field. On January 14, 2005, the RP provided significant advance funding for what was then described as Joint Pre-assessment/Assessment Activities relating to natural resources threatened by the oil spill.

A significant development was the recovery in January of 2005 of a large, apparently abandoned anchor in the Mantua Creek Anchorage. It was obvious that the cause of the spill was the vessel's contact with this uncharted anchor as she approached the Citgo berth on November 26, 2004. The RP took the position that it was entitled to limitation under OPA, 33 USC § 2704. The Coast Guard and the National Pollution Fund tacitly agreed, and by late March 2005, the RP began to transition response activities to United States Coast Guard, which had reached a point in its own investigation to conclude with certainty that the RP was not at fault for the incident. In further recognition of this view, the National Pollution Fund Center ("NPFC") invited third-parties claiming costs or damages as a result of the oil spill to submit their claims directly to the NPFC, instead of the usual procedure of first submitting such claims to the RP.

Although at this point the RP made it clear to the Trustees that (i) it believed it had a valid limitation defense under OPA, (ii) it had already spent almost triple its OPA limitation on response costs and NRDA preassessment activities and, (iii) as a result, it ultimately would not be liable for damages to natural resources caused by the oil spill, it nevertheless intended to continue with the cooperative NRDA. Notwithstanding the fact that the RP's entitlement to limitation was becoming clearer, and that the Coast Guard had taken full control of the response actions with funding provided through the NPFC, the RP continued to support Trustee activities by both continuing to make its technical consultants available to the Trustees and continuing to pay for laboratory testing costs and certain other costs of jointly agreed independent contractors. The Trustees accepted this proposal on June 21, 2005.

Until late 2006, the NRDA continued in a cooperative manner. Four Technical Working Groups ("TWG's") were formed to address potential injury to birds and mammals, aquatic, shore line and loss of human use. Technical representatives of the RP had at least some participation on each of these TWG's. Eventually, the Trustees on each TWG produced draft injury assessment reports, and for each such report the RP provided its comments. This process was completed by late summer 2006.

At about that same time (August of 2006) the NPFC granted the RP's limitation defense and a significant portion of the monies previously paid by the RP were refunded. It was now certain that the NPFC had determined that the RP was entitled to its OPA limitation. Therefore, as a matter of law, the RP would not be required to pay for any subsequent natural resource damage assessment resulting from this incident.

Perhaps not coincidentally, having by now received the RP's comments and in some cases strong objections to the Trustees' injury reports, and also now aware that the RP's entitlement to OPA limitation was "official," further meaningful dialogue between the RP and Trustees decreased markedly. In particular, the Trustees

rejected RP suggestions for mediation of technical differences and then excluded the RP from two important aspects of the NRDA.

II. Process-Related Comments.

A. Trustee Rejection of ITOPF For Peer Review/Mediation of Technical Differences

First, in the spring of 2006, after the RP submitted substantive comments critical of certain aspects of the TWG reports, it was clear that the RP and Trustees had significant differences of opinion on several important technical issues. In May and June of 2006, the RP proposed engaging the International Tanker Operators Pollution Federation ("ITOPF") to act as mediator on these issues. This seemed entirely appropriate given ITOPF's world renowned expertise in oil pollution, and particularly since ITOPF had been designated as a mediator in a formal Memorandum of Understanding ("MOU") between NOAA and the International Group of P&I Clubs regarding pollution incidents such as this. The Trustees circumvented the process reflected in the MOA and declined without explanation to accept any ITOPF role in the process.

B. RP Exclusion from TWG Report Peer Review Process

A second concern relates to the Trustees' exclusion of the RP from the peer review process. After NOAA rejected the suggestion that ITOPF be engaged under the MOU, the RP suggested that the injury reports and the corresponding RP comments be sent out to jointly agreed peer reviewers. The Trustees did not respond to this suggestion and virtually all communications from the Trustees to the RP respecting these technical differences and the prospect for independent review ceased. Although the Trustees made the decision not to communicate further with the RP or its technical consultants on the resolution of these issues, they obviously did not abandon the suggestion of third party review. The RP first learned in January 2007 that certain injury reports were being sent for peer review, to reviewers unilaterally selected by the Trustees. The RP submits that this was not consistent with the understanding summarized in the Trustees above-mentioned June 21, 2005 letter regarding a cooperative NRDA, and was a further end-run around the NOAA/P&I Club MOU. The RP was not consulted about (i) who was to be selected as a peer reviewer, (ii) what materials and other information the peer reviewers were to be given, or (iii) what issues the peer reviewers would be asked to opine on. To this date the RP does not know the scope of the peer review undertaken, whether all of its comments were made available to the peer reviewers, or whether all of the peer reviewer comments are included in the Administrative Record. Having been excluded from the dialogue between the Trustees and the peer reviewers, including the selection process, the RP believes it has been deprived of the opportunity to understand how certain aspects of the injury assessment were developed and critical

issues resolved through the peer review process. The RP requests that the Trustees add to the administrative record all of their respective peer reviewer communications, including communications that discuss potential conflicts of interest, since at least one of the peer reviewers appears to have been a university with on-going research initiatives within areas affected or potentially affected by the spill. Depending on the information added through this request, the RP may request an additional window of opportunity to supplement the comments provided here.

C. RP Exclusion from Restoration Project Screening, Scaling & Selection

The third area where the RP's involvement was curtailed by the Trustees was in the selection of restoration projects. The RP was provided with a long list of potential projects in the fall of 2005 and was given little or no information thereafter. It was well understood at the time that the prospective project list was a very preliminary and incomplete draft. The Trustees' Incident Overview in the DARP mentions some RP participation in the injury assessment, but no RP involvement is mentioned with respect to the analyses of restoration alternatives, which is assuredly what transpired.

A comparison of the DARP's final list of restoration alternatives selected with the 2005 list of prospective projects shows that some of the restoration alternatives, most notably the two Mad Horse Creek projects that together will cost over \$18 million, or 75% of the total NRDA, was not on the one and only list given to the RP in August 2005. In fact, the DARP is the first time the RP became aware of this restoration project or the prominent role it has been given in the restoration initiative. It should be noted that it took the Trustees over three years to develop and select their final restoration alternatives, so it is inconceivable that not once during this time period did the Trustees seek to engage, or even inform the RP. As the RP was not invited to participate in the scaling, screening or final selection of these restoration alternatives, the RP has been significantly handicapped in its ability to offer substantive comments within the allotted 45 days. We also note here that the RP's request for a modest extension of the comment period was denied. The RP is requesting an additional 60 days to review more closely the screening, scaling and selection process underlying the DARP.

III. Technical Comments.

For ease of reference, the RP's technical comments below track the same section numbering system used by the Trustees in the Draft DARP.

4.0 Injury Determination

4.3.1 Shoreline Injury Assessment

The RP offered comment on January 6, 2006 to the Shoreline TWG (the "STWG") on the draft shoreline injury report. The RP also commented on a revised STWG injury report dated March 15, 2006 and labeled "Final Shoreline Injury Assessment".

The assumptions of shoreline injuries in most cases are overly conservative in time and space as discussed below. Information collected by the Aquatic TWG (the "ATWG") was not considered, even though its conclusions suggest some assumptions in this injury category may be incorrect. Specific concerns are as follows:

- The Shoreline Cleanup Assessment Technique (SCAT) data collected as part of the spill response process represent the shoreline oiling categorization by habitat and amount and type of oil on the shoreline. This information is translated into general categories of heavy, moderate, light, and so forth for each habitat type for discussion and planning purposes in spill response. For the purposes of this spill, the Environmental Unit (EU) used a slightly different approach to categorizing shoreline oiling levels which may mean that lesser amounts of oil may result in higher oiling categories compared to other spills. We understand that this spill-specific modification was instituted to provide the Operations Section of Incident Command with a better understanding of "relative" oiling levels for exposed shorelines. SCAT data are often useful for damage assessment and are being used in this case by the Trustees. However, if these data are to be used to correlate injury levels between inspections by persons with different agendas, the categories of Heavy, Moderate, and Light for shoreline types must be consistent. In this case we believe the comparison of these qualitative conclusions was not capable of consistent application, resulting in overestimation of both injury magnitude and duration. This overestimation is compounded by the use of another assumption of shoreline exposure used in this spill by the Trustees as described below.
- The Trustees assumed that the entire intertidal zone from the highest high tide to the lowest low tide was exposed by the stranded band of oil on any segment. Stranded bands of oil are sometimes very narrow and often referred to as a "bath tub ring". In many cases we agree that sheen can re-wash through the intertidal zone from a previously deposited oil band and expose other portions of the zone, although the highest high and lowest low would only be exposed for a fraction of the time. Oil is also often stranded at the highest tide and in some cases does not continue to expose all other tide zones during future cycles. Considering portions of the shoreline not directly affected by oil to be a SCAT oil category of H, M, L, VL when they would not qualify as a

SCAT category using the universally accepted approach to conduct SCAT, is not appropriate when using SCAT categories to assume injury. This assumption results in many acres of habitat that is adjacent to SCAT Classification Heavy oil bands to be considered by the Trustees as Moderately Oiled even when no oil was observed on the habitat during any surveys (*i.e.*, would not be considered Moderate, Light, or Very Light by SCAT). These "non-SCAT" oiling categories are assigned the same injury assumptions used in other spills for SCAT oiling categories. The problem with this approach is that Moderately Oiled habitat injury estimates from past spills are derived from habitats that were, in fact, moderately oiled, and not un-oiled habitats adjacent to an oil band.

- The lack of precision and consistency in the approach to correlation of this data effectively translates several hundred SCAT acres of direct oiling into many thousand acres, and when extrapolated to injury using assumptions from dissimilar examples, can overestimate injury by as much as an order of magnitude or more. To illustrate this example, we provide a mass balance of oil for SCAT oiling categories of H, M, L, and VL. The Trustees method of estimating affected shorelines allege that over 1,400 acres are Very Lightly oiled, 1,657 acres are Lightly oiled, 400 acres are Moderately oiled, and approximately 160 acres are Heavily oiled (Table 6). Based on the average oil distribution and thickness in each of the above SCAT categories, we can estimate how much oil must cover the acres assumed affected by the Trustees. Using the average distribution and thickness of oil in each SCAT category, the spill from the M/T *Athos I* would have had to have involved a release well in excess of 1.2 million gallons in order to satisfy the oiling assumptions of the Trustees. It may be acceptable to assume more acres of oil were indirectly affected by oil for injury assessment purposes, but using unique shoreline oiling categories not used in other spills as a basis for inferences about injury and comparing it to past reports of injury from other spills that use standardized SCAT classification will greatly overestimate the magnitude and duration of injury from the spill.

Table 1

Oil Category	Alleged Acres Affected	Gallons of oil using average oil thickness and distribution in each SCAT Category
VL	1,400.48	37,430
L	1,657.23	442,924
M	399.92	235,149
H	160.52	643,527
Total Gallons		1,359,030*

*The maximum oil based on accepted SCAT categories is more than 10 million gallons.

- Shoreline oiling length was estimated by overlaying the maximum oiling maps on the ESI maps. Maximum oiling maps often show the maximum oiling condition of any single segment but do not necessarily reflect the overall oiling condition of the entire segment. Only a portion of a segment may be heavily oiled and the entire segment could become "heavy" on the maximum oiling map. The use of maximum oiling maps which portray only the heaviest oiling category in each segment will overestimate shoreline oiling conditions. We are unsure whether segments were broken into oiling categories for sub-segments or whether an entire segment was considered the same as the most heavily oiled sub-segment. This point should be clarified so that we can evaluate the effect such an approach will have had on the prediction of the extent of injury.
- Inclusion of tributary surface waters as injured shoreline acres is not appropriate. The Trustees do not specify what comprises this resource category or the ecological services it offers. The vast majority of the area in the "tributary" injury category is surface water. Tributaries are the second largest category of lost DSAYs. Many of these areas are subtidal, were not exposed to oil, and cannot suffer the same magnitude and duration of impacts of intertidal shoreline sediments that retain PAH, where it may persist. The impact to tributary shorelines is substantially overstated by including large areas of surface water. In direct contradiction to the STWG, the ATWG attributed ***no injury*** to the surface water of the Delaware River and Bay, with moderately and heavily oiled sediments recovering within a year.
- The assumption of injury duration in most shoreline categories is not supported by empirical data. The ATWG data suggested the injury duration in coarse, sandy, and muddy substrates persisted for less than a year in all oiling categories. The data also suggested that lightly oiled areas may not have been subject to any service loss at all due to insufficient concentration of toxic components.
- There are other inconsistencies between the STWG and ATWG. The ATWG considered the injury to be one of toxicity, while the STWG considered fouling as the mechanism of injury, as indicated in a February 9, 2006 letter from the Trustees. The shoreline assumptions were undertaken in the absence of specific data for this spill, while the ATWG looked at oil toxicity properties, bioassay studies, chemical analytical data of sediments, and PAH literature. If fouling is accepted as the primary injury to shoreline and tributary surface waters, there remain problems with the assumptions of injury magnitude and duration as discussed above. To support the assumptions in the report, the Trustees should provide evidence of fouled surface water aquatic organisms and observable and measurable evidence of their inability to recover for up to one year. We understand wildlife on the water became fouled, and that those

injuries are addressed separately by the Wildlife Technical Working Group (the "WTWG"). We recommend eliminating the estimated surface area of water from the injury assessment.

- There is an overall lack of technical support for injury magnitude and duration assumptions. For other shoreline categories and oiling levels, the magnitude and duration of injury appears to be overstated based on data from the ATWG. The justification for injury assumptions in the shoreline group is lacking. The sand/mud and coarse substrates are listed in the report as requiring 3 years to recover in all categories, with service losses of 50% (lightly and very lightly oiled) to 100% (moderately and heavily oiled). We can find no observable or measurable empirical evidence to support these conclusions. The ATWG found that toxicity was limited, service loss was only partial, and recovery was relatively fast (< 1 year) even in heavily oiled sediments based on chemical analytical analysis and bioassay results.
- The Shoreline Injury Assessment indicates over 1000 acres of sand/mud substrates lost 50% to 100% of services when the chemical analytical data from these same locations do not support service loss in the month following the spill. The Shoreline Injury Assessment also indicates three years to recover when evidence of ATHOS-related toxicity was not present in samples from oiled shorelines following the first month. While only several intertidal samples among many showed evidence of M/T *Athos I* oil, the concentrations were not sufficient to result in estimated acute or chronic toxicity. Intertidal samples collected by the RP and NJDEP during the spill were collected in areas of sheen and tarballs. Unlike the subtidal samples, these samples targeted oiled areas and were selected to specifically be representative of impacted intertidal zones. Sheen and tarballs were observed within several samples, and at nearly every sampling location in the spill area. Based on the ATWG analysis of chronic and acute toxicity, the ATWG estimated that 10 ppm PAHs constituting the sum of National Status and Trends (NST) PAHs, resulted in approximately a 25% service loss. Only one intertidal sediment sample resulted in a value of more than 10 ppm NST PAH (12.5 ppm NST PAH) (Table 3 from Toxicity Memorandum, 19 December 2005). This sample (SED-WOOD-01) contained very high levels of pyrogenic PAHs **not found in the M/T *Athos I* oil**. Thus, based on site specific data, injury is not indicated and is neither observed, measured nor likely.
- We also believe the data interpretation from the ATWG may overstate the injury as we commented in our March 3, 2006 letter and reiterate below. We believe the initial loss and recovery of the categories of all intertidal habitats should be adjusted downward to more closely resemble the empirical data.

4.3.2 Bird and Wildlife Injury Assessment

The method of using widely scattered bird observations to extrapolate the total number of oiled birds in the population is fraught with errors that cannot be controlled, including double counting, inexperienced observers, and an unknowable background rate of observations of birds with some degree of oiling among many others. Further, translating this error-prone estimate of oiled birds into an estimate of dead birds was conducted in the absence of adequate data on known mortality levels for different birds with varying degrees of oiling. Essentially, the Trustees do not know if the alleged levels of oiling would result in the assumed mortality. An analysis of actual dead bird deposition patterns in different habitats and extrapolation of these differences to unsearched habitats would likely have been more accurate.

Wildlife rescue efforts were initiated within 24 hours with search teams patrolling oiled shorelines and coordinating observations of dead and oiled wildlife with response/clean up crews. At some times, there were more than 1,200 personnel working on shoreline cleanup and aware of the need and importance of quickly identifying and reporting oiled wildlife, dead and alive. By May 2005, a relatively modest 206 birds were either collected dead, died at the rehabilitation center or were not released, and 337 birds were rehabilitated and released alive. Overall, the number of birds found dead given the field coverage is very low compared to those estimated dead by the Trustees. We believe the lack of tangible evidence of dead birds given the hundreds, and at times thousands of workers, inspectors, and members of the public on alert to this issue, for many weeks into the spill, must lead to the conclusion that many fewer birds were in fact killed or injured by this incident than have been projected through simulations and models.

Given the low numbers of actual dead birds that were found by very large numbers of searchers, we believe the unverified assumptions of mortality are in error. Typical multipliers of birds found to birds estimated killed used in other spills and often based on survey data are much less than the injury estimates in this case. Other comparable oil spills in areas with expansive marsh have reported bird multipliers from injury studies, nearly all of which are far lower than that employed in the case of the M/T *Athos I*. Even using the upper estimates of multipliers reported from other spills results in substantially less birds killed than estimated by the Trustees in this case. There is no reason to believe that this habitat, patrolled by over 1,200 spill workers and other searchers for many weeks, is dramatically different from other spills in terms of dead bird findability. There was no assessment of scavenging, searcher efficiency, or other findability metrics for birds assumed dead near affected shorelines. In the absence of these matrices having been employed, the assumptions employed by modelers appear to have resulted in a dramatic over-estimation of bird injury.

Most of the birds estimated dead by direct kill were geese and gulls (69% of 3,308). These are large birds and we expect that if these projections were correct **many** more of them would have been found. The Trustees also include production foregone of these birds in the population, which results in an additional 8,561 birds estimated lost. Production foregone losses **assume** that the hole in the population cannot be filled by compensation by surviving birds (density dependence). Production foregone is a hypothetical future injury for which there is no evidence and is likely never realized. We find implausible and inconsistent with ecological principles the claim that there will be a significant "hole" in future populations because of the loss of even a few thousand birds today. Claiming production foregone without considering how populations recover from perturbations with density dependent influences overstates the loss. The response of the population in the aftermath of a perturbation is critical to understand when attempting to measure the perturbation. These issues are not addressed in any level of detail in the *Draft* DARP.

In addition, since the purpose of the assessment is to estimate the birds no longer present but for the occurrence of the incident, the Trustees have missed a significant algorithm in their formula. For example, the M/T *Athos I* incident is projected by the Trustees to have prevented over 15,000 waterfowl hunting trips, during which a large number of waterfowl would have perished. These hunting trips were foregone for the year, hunters did not have the opportunity to remove these birds from the population until the following year or beyond. . If even half of these hunting trips resulted in a single bird loss, there would be a net benefit to the bird population by nearly 7,500 birds. This affect likely removes the need for any waterfowl restoration for hunted species, a very substantial portion of the Trustees' total cost proposal. The DARP makes no effort to balance these competing influences and in fact uses both independently to boost the assessment of injury. The need to make the public whole for the loss of hunting trips likely survives while the assessment of bird fatalities for hunted species should result in no net increase in injury.

4.3.3 Aquatic Injury Assessment

The ATWG has made a valid attempt to use empirical data, rather than mere assumptions that would be of questionable validity or relevance to this spill. The use of data has resulted in a preliminary determination that suggests the magnitude and duration of the service loss in the most heavily oiled subtidal areas is substantially less than that assumed in the Shoreline Injury Assessment for lightly and very lightly oiled shorelines and tributary water surfaces, which is counterintuitive. We believe the empirical data generated in association with the ATWG's efforts strongly suggests that the Trustee's have over-estimated the magnitude and duration of shoreline injury.

Our main concern with the ATWG studies was related to the likelihood that background contamination played a large role in defining the area and magnitude of

the assumed injury of the M/T *Athos I* oil. The Delaware River in this long-urbanized/industrialized section of the River has a documented history of contamination, including "background" sediment contamination by non-*Athos* polycyclic aromatic hydrocarbons (PAHs). Overall, only very small quantity of PAHs are found in the M/T *Athos I* oil (0.6 %). An even smaller amount of PAH ended up on the bottom of the river, and further, studies show that only the soluble fractions are responsible for toxicity. PAH toxicity was used as the measure of M/T *Athos I* injury in the ATWG. The problem with this approach is that most PAH values in samples used to define the *Athos* injured area and the magnitude of injury do not have any discernable M/T *Athos I* PAH in them. We therefore disagreed with the Trustees that the assessment of source allocation has too much uncertainty, and welcomed review of the data by the Trustees' forensic chemistry analytical experts. Essentially, levels of PAH in samples that are derived from other sources than the M/T *Athos I* are being used to assign injury to the M/T *Athos I*. The forensic chemists have indicated that only as much as 10% of the detected PAH signature could be M/T *Athos I* oil. Accordingly, the empirical data and forensic chemist's opinion should be given more weight and an average more in line with the existing data and opinion evidence must be used to generate the injury estimate. The Trustees instead chose to reject a partition of injury percentages consistent with the empirical evidence in favor, resulting in an over-estimation of the injury attributable to M/T *Athos* oil.

We do not believe that a single bioassay from Tinicum Island (an area of known high background contamination) performed on different dates is an adequate measure of injury magnitude. It is not certain that differences in survival are due to natural spatial variation with this small sample size. It was also not determined by forensic chemistry if the PAH in any of the sediments contained M/T *Athos I* oil. The Trustees assessment of initial service loss using the numeric approach to estimating service loss requires a PAH sediment load that does not appear to be possible even if all of the PAH in the entire volume of spilled oil covered the bottom of the river. We know this could not be true because the STWG assumptions suggest more than the total volume of the spilled oil was on the shoreline, not even taking into account the significant volumes of oil recovered through response efforts within the first days and weeks of the spill. Overall, the mass balance of available oil in the Trustee assumptions of injury is not tenable and results, again, in a gross over-estimation of impact and injury.

The sediment data collected in tributaries for this assessment runs counter to the Trustee's conclusions in the Shoreline Injury Report that the entire aerial extent of tributaries were injured, including subtidal areas with **no evidence** of M/T *Athos I* oil. The Trustees indicate that this is not a large injury category; however, the DARP suggests that more acres of oiling occurred in tributaries than in the mainstem of the Delaware River (Table 6), which is implausible. The contradiction of the data with reference to injury assumptions in the shoreline group are substantive.

4.3.4 Lost Recreational Use Injury Assessment

The fishing, crabbing, and boating surveys conducted as part of the Lost Recreational Use Assessment were composed of two "sections". The RP is concerned that there may be a source of bias in the second section of the survey, which specifically mentioned the spill event prior to eliciting whether it ("the" spill) had an effect on a surveyed person's use of the river. The RP made known its view and concern at the time each survey was undertaken that including a specific reference to "the spill" could lead to a biased sample result, since those surveyed are more likely to "accept" an adjusted a river use when offered specific information regarding the Athos I incident. Not surprisingly, a higher proportion of respondents to the second survey did accept a spill effect, a result which corroborates the occurrence of bias in the responses during the second section of the surveys. Compounding this problem, only the second section was relied on in development of the estimate of damages. Because we believe the second section reflects inherent bias and no effort was made to "adjust" these findings for potential bias, this method of determining lost use damages overestimates damages for these activities. We believe the TWG should be asked to further evaluate the potential for bias in this method of damage assessment, adjust the damage assessment value to account for data collected in the first section of the survey, and modify the damage estimate accordingly. If such adjustments are not made, the damage assessment will overestimate the lost use and, correspondingly, overstate the actual damage suffered and for which NRD reimbursement will be sought.

New Castle County, Delaware (NCC) accounts for a substantial proportion of the fishing damages (68%). This occurs partly because roughly half of NCC was assigned to the moderate spill effects group and half to the low spill effects group. It is notable, however, that the Wave 1 fishing survey indicates relatively small effects in Delaware, with few or no lost trips. The data on actual trip losses does not support the conclusion reached in the Draft DARP on fishing damages in NCC. Indeed, based on the survey data, it is apparent that the damages have been overestimated and should be adjusted downward to account for actual survey data. If such adjustments are not made, the damage assessment will inflate the lost use figures and, correspondingly, overstate the actual damage suffered and for which NRD reimbursement will be sought.

Regarding fishing damages, the spill effects (proportions of trips affected) estimated for the third time period (August 7 through October 31) were assumed to equal those estimated for the second time period (June 13 through August 6). The Draft DARP estimates that the proportion lost in the second period decreased 50% compared to the first period (April 1 through June 12). Since there is evidence that spill effects were decreasing over time (and access to spill affected areas increasing), applying the proportion for the second period to the third period likely results in an overestimate of fishing damages. Any such overestimate could be significant, as

Period 3 comprises 29% of the total baseline fishing trips. Some effort should be made to coordinate the estimated damage numbers between the three time periods, which should logically result in a reduction in the damage estimates. If such adjustments are not made, the damage assessment will inflate the damage figure associated with this component of the NRD and, correspondingly, overstate the actual damage suffered and for which NRD reimbursement will be sought.

Because of the small sample sizes in intercept surveys of recreational users, the estimated proportions lost, substituted, and degraded may be substantially affected by the weighting scheme and may be influenced by outliers (responses that fall outside the range of most of the data). Because the proportions lost, substituted, and degraded are one of the drivers of the damages estimates, details regarding the interpretation of the data and extrapolation to the population have a large effect on the estimates of damages.

Background recreational use is also difficult to determine for the time of the spill, which occurred during winter and subsequent cold weather and likely would have experienced lower use than the baseline data available (April to October). Using periods of better weather as an expected user density will overestimate recreational losses.

5.0 Restoration Planning Process – Analysis of Alternatives

5.1 Restoration Evaluation Criteria

The RP was not included in Restoration Selection, Screening or Scaling. However, the RP participated at a very preliminary stage in the development of a first prospective project list, where some limited discussion of restoration selection criteria was held. Due to the limited amount of time for the public and RP to respond, we cannot comment on specifics in these sections. Typically, a scaling exercise can benefit from comment and insight by more parties and we often find that comments on Habitat Equivalency Analysis, input assumptions, and collateral benefit often make a substantial difference in the NRD outcome. We believe we would likely have a number of technical comments on the use of HEA and the validity of a number of assumptions that would have resulted in substantially different conclusions. Given our lack of time and detailed scaling information from the Trustees, we can provide only general comments on this section. The main problem with restoration project selections is that the Trustees have not adhered to the restoration selection criteria. The DARP asks:

(1) does the project have the potential to result in a quantifiable increase in one or more of the injured resources.

This criterion addresses OPA selection guidance. The *Draft* DARP also stated:

The extent to which each alternative benefits more than one natural resource and/or service;

The Trustees have chosen projects that benefit more than one resource or service, but they are not crediting all the services and/or resources provided by each project. Multiple benefits appear to be a selection factor in Table 17, but the projects with multiple benefits listed are only providing credit for one specific injury from the spill, even though they have other services that address other injured resources.

The restoration of habitat for loss of habitat is appropriate in concept, although overstated as discussed in our comments on injury assessment. However, restoration of habitat for a specific group of injured animals means that many services of the habitat may be available to compensate for other injured resources.

Examples of benefits to more than one natural resource are as follows:

- 1) Dam removal to compensate for shoreline habitats and tributary surface waters also benefits benthic biota, which is not credited. The trustees have a separate project of oyster reef creation for benthic biota.
- 2) To compensate for losses to bird species consuming primarily invertebrates, the Trustees propose restoration of 25.4 acres of wetland habitat in Mad Horse Creek. These wetlands also produce fish and other organic material that would compensate injuries to piscivorous or omnivorous birds.
- 3) To compensate for losses to piscivorous or omnivorous birds, the Trustees propose creation of approximately 73 acres of oyster reef in the Delaware River. Firstly, there are values for piscivorous and omnivorous birds in the Mad Horse Creek project not credited by the trustees as mentioned in (2). The oyster reef is also only used to credit fish production that is eaten by birds, but is not crediting the benthic production itself, which would address injury to benthos.
- 4) To compensate for losses to primarily herbivorous birds, the Trustees propose creation of 35 acres of wet meadow habitat and 100 acres of grassland habitat at Mad Horse Creek, as well as 41.8 acres of migratory goose habitat in the Blackbird Reserve Wildlife Area in New Castle County. These wetlands also would contribute to production of organic material that is used by other injured resources, which the trustees have sought in separate projects.

The proposed projects include many millions of dollars of redundant restoration that is unnecessary and in conflict with OPA's express prohibition of double recovery.

In summary, habitat injury is overstated by an injury assessment that is essentially a desktop exercise that "spreads" several hundred acres of a direct footprint of oil over many thousands of hypothetically exposed acres, then assumes injury based on past studies of effects that occur under a direct footprint of oil (differing exposure conditions). The injury assessment relies upon numerous assumptions that were made in the absence of observation or measurement and are counter to the empirical evidence. Bird injury is overstated by excluding the bird gains resulting foregoing over 15,000 waterfowl hunting trips, and by overestimating at the start the number of killed or injured birds. The overstated injury is then translated into restoration projects that involve double recovery counter to OPA rules. This has resulted in overestimation of restoration costs by a substantial portion of the overall cost estimates provided by the Trustees. It is likely that comparable inferences for injury assumptions and adjustments for overestimation in both injury and restoration requirements would result in cost savings to the Oil Pollution Trust Fund in excess of \$10 Million USD.

IV. Contingency Funding

The RP does not understand why the DARP includes a 25% "contingency" for cost over-runs, amounting to nearly \$6 million on top of the \$24 million restoration projection. Fundamentally, the DARP is intended to quantify injury and to convert that injury assessment into a dollar amount. The use of a contingency suggests that the process has been reversed. That is, the selected restoration projects have influenced the valuation of injury. The RP believes it is incumbent upon the Trustees, particularly when public funding is being used to undertake selected restoration, to "fit" the projects into the injury valuation, not the other way around. If a 25% contingency is appropriate, then the restoration project budget should accommodate that element of cost, so that the total projected NRDA – a number tied to the actual value of the injury – covers the cost of the restoration project plus any construction contingencies.

The RP is familiar with the use of contingencies in these types of exercises, but believe they have come into use largely because of the nature of Trustee-RP settlements, with the RP generally "cashing out" its liability at a fixed amount – because the Trustees do not always have the ability to go back to settling RPs, contingencies are added (and negotiated) as an allocation of risk. That element is absent from this NRDA process, since restoration funding will come through the NPFC. In the present circumstance, with pay applications being made to the NPFC, the use of a 25% contingency is inappropriate and could potentially result in a waste of taxpayer money and valuable resources within the Fund. We assume the NPFC will approve pay applications as they are submitted, as opposed to issuing a lump sum payment, including an appropriate contingency, to individual Trustees or their contractors. If additional work is needed, new pay applications should be made to

cover the cost overruns, with justifications provided at that time. Because of the importance of the Fund, as a matter of public policy it should not be depleted speculatively to cover contingencies that may or may not be justified.

Correspondingly, if the Trustees are able to bring their final restoration projects in below budget the resources of the NPFC continue to be preserved. Although these types of funding questions will ultimately have to be worked out with the NPFC, the RP believes it is inappropriate in this circumstance to build a 25% contingency into the damage assessment.

V. "Monitoring and Oversight" Costs

For the same reason the RP believes it is inappropriate to tack a contingency cost on top of the valuation of injury, it believes the funding of "monitoring and oversight" should be subsumed within the valuation of injury. Stated differently, the cost of selected restoration projects should be scaled back so that the value of Trustee oversight can be included within restoration project costs. It is inappropriate to, in effect, increase the valuation of injury with what amounts to administrative costs associated with implementing preferred restoration projects. The Trustees have, in effect, added off-balance sheet costs into the equation, which is not authorized by OPA. It appears that the Trustees have undervalued the cost of their projects by pulling out project costs tacking them on top of the injury costs.

The Draft DARP does not contain enough information to allow the RP or the public to evaluate how the Trustees calculated "monitoring and oversight" costs of nearly \$2.1 million over a period of 7 years (*e.g.*, annual costs averaging \$300,000/year). At a minimum, there is no detail provided as to who will be doing what, at what pay grade, or how the time estimates were calculated. For example, NOAA projects 1818 hrs. per year (a fairly precise number, suggesting that it is more than a mere estimate) at an average annual cost of \$250,000. That is a government employee working at an average rate of \$138/hour. The RP and public have a right to know whose time is being assigned to these numbers and how the cost figures were derived. At a minimum the DARP should identify the types of personnel and from which agencies and list the costs expected to be incurred by these employees in their "monitor and oversee" roles.

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We appreciate the opportunity to comment but renew our request for additional time following our receipt of the additional information and data identified above. We believe an additional 60 days from our receipt of the additional information requested above (which may include its posting on the NOAA website page for this incident and some communication of that posting to the RP

Comments of the RP

Page 18

February 20, 2009

representatives listed on the cover page) would be adequate. Thank you for your consideration of these comments.