

Kenny, Ann

From:  
Sent:  
To:  
Subject:

Kenny, Ann  
Thursday, May 03, 2001 4:29 PM  
Hellwig, Raymond  
FW: Third Runway/Deliberative DO NOT DISCLOSE



clarification MEMO.doc

-----Original Message-----

From: Katie Walter [mailto:KLW@sharwil.com]  
Sent: Thursday, May 03, 2001 4:20 PM  
To: Kenny, Ann  
Cc: Stockdale, Erik; Samuel Casne  
Subject: Third Runway

Attached is the draft clarification memo. Let me know if you would like revisions or clarification on anything. I will be in Idaho for a long weekend, gone Friday and Monday, but will touch bases with you on Tuesday. In the meantime contact Sam Casne if you need assistance.  
Best regards,  
Katie Walter

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**DRAFT MEMORANDUM  
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P.O. BOX 300303  
SEATTLE, WASHINGTON 98103  
206-632-8020  
TDD: 1-800-833-6388

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SAINT LOUIS  
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FAX: 206-633-6777

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**To:** Ann Kenny and Erik Stockdale, Washington Department of Ecology  
**From:** Katie L. Walter, Shannon and Wilson, Inc.  
**Date:** April 25, 2001  
**Project No.:** 21-1-12020-001  
**Subject:** Outstanding Issues for Port Resolution

Shannon & Wilson, Inc. has had a series of meetings with Jim Kelly of Parametrix Inc. to help to clarify outstanding issues regarding the Natural Resource Mitigation Plan for Seattle International Airport proposed third runway. We met at Ecology headquarters on April 5, 2001 with Ann Kenny and Erik Stockdale, at the Port West Side offices on April 12, 2001 and at the Auburn mitigation site on April 19, 2001. We discussed the proposed mitigation and clarified many points. The following outlines how each issue was resolved, or if it needs further clarification from Parametrix. The responses to my questions are in italics below the specific question, and unless stated otherwise were responses from Jim Kelly. We have added follow up questions resulting from their responses.

**Miller Creek and Walker Creek**

What ground water data is available? Has a plan been put together showing where data is being collected currently? What kind of baseline information is available? How has the hydrology of wetlands directly adjacent to the fill been studied? How will this be monitored? If changes to the hydrology are detected, what amount of change in hydrology will be acceptable, and how will contingencies be implemented?

*Monitoring will be based on soil and plant conditions. They feel that development of a hydroperiod performance standard would be difficult. Data is available in many wells; some have 2-3 years of background data. Erik Stockdale suggested that if the Port obtains additional data from wells this year, because it has been a dry year, it would reflect the low water conditions and any monitoring post construction that showed a drier situation would be indicative of a problem. Jim suggested a wetland delineation be performed at year 5 or 10 of the monitoring to look at what areas are wetland, for a direct comparison. Port consultants have hydrologic monitoring data which suggests that the wetlands could get larger than the existing system. I requested that Parametrix try to develop ways to effectively hydrologically monitor the remaining wetlands, with special emphasis on the wetlands temporarily impacted by the proposed development.*

King County identified that under low flow conditions it is possible that the stream flow will be primarily through the gravel, with no observable surface flow. How will this be rectified? King County also identified some double counts to the precipitation entering the fill embankment and the infiltration facilities/retention vaults, will this have an impact on the low flow? They also suggest that the delayed drainage contribution to the stream may be overstated because the model was run on the thickest portion of the fill. How does that translate to impacts to the wetland hydrology?

*They are looking at additional modeling and hydrologic information.*

How will the low flow augmentation occur and mimic natural conditions?

*Jim Kelly was unaware of the proposed flow augmentation, and would provide more information after he had a chance to discuss it with other team members.*

Pond D shows an outlet to Wetland 39 that has a discharge orifice set at elevation 347.2 feet and the bottom elevation of the pond is a 336 feet. Over 11 feet of water will be needed in the pond before it will discharge to Wetland 39. Kelly Whiting (King County) roughly estimated that a 5-year storm (approximately 2.5 inches of water in 24 hours) would be needed before that wetland receives water through this discharge orifice. In addition, the discharge point is down gradient from the upper part of the finger of the wetland. Can we assume that the area above the discharge orifice will be effectively drained? With respect to the frequency of the water from the discharge point, can we assume that this water supply is not sufficient to support the wetlands effectively?

*Parametrix is changing the design so that additional water will reach the wetland more frequently from the stormwater system. They indicated that 0.06 acre of wetland impact was included in the impact analysis for the finger of Wetland 38 which is above elevation 340 feet.*

Pond F discharges to Walker Creek and according to King County may get larger unless more infiltration can occur. If infiltration does occur less volume will be discharged to Wetland 44a. How will these potential changes impact the hydrology of this wetland?

*The current understanding is that the groundwater movement through the fill embankment will provide hydrology to that wetland. Ann Kenny stated that information coming from King County suggests that the hydrologic modeling may overstate the contribution because data was derived from the thickest portion of the embankment. Jim Kelly said that if the fill is too thin then they might need to re-look at the data. Has this been done, and are the results available?*

Pond G shows the bottom elevation at elevation 246.0, and the cross section shown on C136 in Appendix I of the Wetland Functional Assessment report shows ground water being intercepted by the bottom of this pond. How will hydrology to the down slope wetlands be maintained if the ground water is intercepted by the storm water pond?

*Summer ground water elevations won't be intercepted, and in the winter, wetland hydrology will be sustained by other flow sources, so interception of the groundwater will not impact the wetland. Is additional information available to support that statement? Will the pond fill in the winter because of groundwater inflows?*

The relocated channel in Miller Creek along the Vacca Farm will be lined. What is the life span of

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the geotextile? How will the geotextile account for channel dynamics? If the geotextile becomes exposed will it need to be maintained, or recovered? How will access be acquired to complete the maintenance?

*The berm along the creek in the vicinity of the Vacca Farm was included to contain the creek. The design allows for channel dynamics within the lined area only and the Port will monitor potential movement. They do not anticipate needing to maintain the lined channel. How will this monitoring be conducted, and how often? How was the system designed for high flows?*

With the additional weight of the gravel bed on the geotextile overlying peat substrate I assume there will be some subsidence. Has this potential subsidence been accounted for in the channel creation?

*The geotextile liner was included as a method to mitigate the settlement. The fabric will not impair water movement. The fabric allows 65-110 gallons per minute per square foot of textile.*

Is there a potential of undermining the log weirs during high flow events? Will the logs subside in peat soils?

Will the bedding material associated with the existing and proposed sanitary sewers (where they cross under the recreated stream channel) create a drainage pathway along the sewer line instead of in the stream channel?

*Jim Kelly said he would check with the engineers on this issue. This needs an engineered solution during the design phase.*

Will the removal of the concrete bulkhead in Lora Lake change the erosion potential along the shoreline and possibly undermine the retaining wall?

*After seeing the lake, it appears unlikely that erosion would be an issue, however, Jim Kelly did say that the erosion control fabric curtain will remain in place until the bank has revegetated.*

Appendix A C-2 of the NRMP shows a drainage channel within the floodplain. What is the purpose of this, and will it impact the wetland creation on the flood plain area by facilitating the drainage?

*The drainage channel was included to keep a positive flow over this area to help to keep areas from ponding during plant establishment. Ponded water is not desirable because of the conflict with bird attractants and airport flights. Once the shrubs are established the ponded water becomes less of an issue, since it is less likely that those areas will be bird attractants.*

At the tight point where the Miller Creek is at the foot of the fill, the NRMP drawings (Appendix D, C-6) show culverts discharging to the down slope wetlands, but the SMP shows flow spreaders. Which plan is correct? How much water is going to the wetlands, and how much is needed?

*Jim Kelly suggested that the culverts probably were the ones under the security road. He will check on the discrepancy. He also said that it was not possible to model the hydrologic need versus what will be there post construction, but that they will make up for that through monitoring. Please provide more site specific details for monitoring.*

Appendix D, C-5 (also shown in SMP as C115) in the vicinity of Temporary Pond A no drainage channel is shown. How will water get to this portion of the wetland? There are other areas along the embankment in similar situations. Will water supply be an issue in any of those locations? *The replacement channel is not needed in the vicinity of Temporary Pond A. The ditch will convey water and gradually fan out in the low portion of the wetland. How will hydrology to the temporarily impacted area under Pond A be returned when the pond is removed? How will areas like this be monitored post construction to ensure that the hydrology criteria is present and not adversely impacting the remaining wetlands?*

The replacement drainage channels shown (example SMP C115) appears to only discharge at the location of the flow spreader, and not all the way along the length of the drainage channel. How will areas along the replacement channel, not including the flow spreaders, recharge water to the wetlands?

*There are spalls along the channel, which allow for seepage along the length of the drainage channel, and also the flow spreaders that would provide for more control of the rate of discharge. I asked for more information and drawings associated with the drainage channels.*

Temporary wetland impacts will occur along most of the west and north slope of the fill embankment. Has temporary been defined in terms of length of the impact, before the area is returned to wetland?

*As an example, Temporary Pond A will be in place between 1-2 years, and Temporary Pond E being in place for 3-4 years. Jim Kelly also pointed out that the Corps will call anything in place over one year a permanent impact. How will that requirement change the mitigation ratios, and how will those changes be shown on the plans? In addition, as an example Jim mentioned that Temporary Pond A will have a 6-8 foot excavation. Erik Stockdale asked how would the wetland be recreated in those areas? His concern centered on removal of the subsoil, permeability of the remaining soils, and viability of stockpiled soils that are stockpiled for long duration.*

### Borrow Area 3

How will the single point discharge shown on the plans adequately make up for the loss of groundwater flow to Wetland 29?

*Jim Kelly and I visited the wetland on April 12, 2001, and agreed that the upslope portion of the wetland likely would be negatively impacted by the reduction in ground water. This may result because the drainage swale that will deliver water back to the wetland will discharge to the lower end of the wetland. Jim said they would look at how that could be changed to get the discharge point in a better location.*

How will the wetland hydrology be monitored? Have monitoring protocols been outlined that define what changes in the hydrologic regime will warrant corrective action?

### Tyce Pond and Des Moines Creek

Appendix F of the NRMP shows the restrictive covenants on the Tyce Golf Course mitigation

area. Erik Stockdale remembers that this east branch of the creek buffer was being provided for the lack of buffer on a portion of the golf course mitigation area. If this is correct then it needs to be reflected on the plan instead of the note shown.

*The East branch of Des Moines Creek did not get mitigation credit because of the uncertainty in the SR509 access. Ecology wants the buffer provided for the area outside the proposed ROW for SR509.*

Appendix C of the NRMP shows proposed channel excavation (by others) on Des Moines Creek within the wetland mitigation site. When will this occur and when will the enhancement occur? Will the excavation create a draw down effect that would no longer support hydrophytes scheduled to be planted there?

*The Des Moines Creek channel work is proposed (by others) because the DO levels in the creek are very low, and it will provide positive flow in the creek. The substrate is mostly peat, so not much of a draw down effect is expected. The environmental impacts of the channel work will be mitigated when that project goes forward, it is not the responsibility of the Port. At the end of 2004, if the channel work is not completed the enhancement area will be revegetated regardless.*

Appendix C, C-4 shows a cross section of the wetland enhancement area that goes beyond the wetland boundary. Is this an error on the plans?

*The area labeled existing wetland is mislabeled and should be labeled as floodplain. Parametrix will correct this.*

#### Auburn Mitigation Site

The cuts shown for the mitigation site are significant. Large portions of the mitigation site in the phase one grading plan will be between elevation 41 to 45. The hydrology data provided in the NRMP (Figure 7.2-10) show groundwater elevations for the site in March of 2000. In general the water tables would be between elevation 45 to 48.5. If this is a typical water level for spring then much of the mitigation site will be under several feet of water. The wetland outlet is constructed at elevation 43. Is the vegetation proposed for this site compatible with the water regime of the site?

*The outlet elevation should be at elevation 41, and the drawings are misleading. Because of the flexibility in the outlet control structure elevation water levels will be controlled to a degree, and ultimately the outlet elevation will be at elevation 42. Jim provided photos of wetlands that are the target type wetlands for this project. I am still very concerned with the proposed excavation, and the potential for standing water over much of the site. I understand that the City of Auburn has permitted this project with a condition for flood plain storage. I am not convinced that the proposed revegetation plan is compatible with the water regime of the proposed excavation. Parametrix promised to provide additional cross sections that show existing contours, proposed contours, and the estimated spring groundwater tables for both phase 1 and phase 2 grading areas. The outlet structure will be below spring groundwater elevations creating a hydrologic cone of depression. Will that negatively impacted groundwater tables?*

Steep cuts are proposed along the edges of the mitigation site. Will they create a barrier for wildlife passage? Could more natural contours be provided to better blend with the surrounding

area?

Will the cut along the Phase I and Phase II grading areas drain portions of the existing wetland that are not proposed to be graded?

*Parametrix will provide plans showing the hydrologic zone of influence along this cut. Have potential wetland impacts been accounted for as a result of the zone of influence?*

How will reed canary grass be controlled in areas that are not being graded?

*Parametrix recognizes that reed canary grass will be a potential problem on this site and proposed to deal with it during the maintenance period.*

Has a scour analysis been completed for Auburn Creek or the ditch along 277<sup>th</sup> for the dewatering proposed during construction?

*Engineers for the Port will look at this issue. A copy of the dewatering report and NPDES permit will be provided to us.*

During the site visit to the Auburn site sand drains were discussed. How will the sand drains impact the shallow wetland hydrology in the vicinity of the pit?

During the plant establishment phase it is important to allow water not to inundate hydro-seeded areas, and to allow the water levels to rise with the growth rate of the plants. If areas scheduled for hydro seeding are underwater what contingency is being provided to revegetate these areas? *If the water level cannot be controlled during plant establishment then plugs will be used instead of hydro seeding. This should be included as a note on the plans.*

#### General comments for all mitigation areas.

Please provide monitoring details for the final performance standards. Sections of the NRMP discuss standards and the evaluation approach but it does not provide details on how many sampling points, where, or define acceptable measurable standards etc.

#### Questions specific to the NRMP plan set

##### Appendix A – Miller Creek Relocation and Floodplain Enhancement

Sheet C3: Note 13. Has an irrigation plan been submitted?

*A below ground system is proposed in this area, but a plan has not been submitted. It will be abandoned in place, and the above ground portions will be removed.*

Sheet C4: Is the area between STA 4+92 and STA 8+65 in the stream channel?!

*If the manholes are in the stream channel, a note on the plan will be necessary to relocate them.*

Sheet C7: On the large woody debris detail, will the soil anchor be effective if it is into peat?

*The anchor is only temporary on the logs so they embed. The ones in the channel will be cabled in with a steel cable because they need to stay in place.*

On the swale section, why does erosion control matting need to be here? Will this area be seeded or vegetated like the restoration area?

*It will be seeded.*

On the quarry spill pad section, has subsidence in peat been addressed?

*The engineers expect some differential settlement. The low flow channel was designed for some moving and shifting of gravel.*

Sheet C-8: In the in stream log detail, what is the expected life span of the ¾ inch hemp rope? If it fails, the logs may float away. Is there any contingency plan for this?

*Changes to the plans will be made to show steel anchors for all the logs in the stream channel. Hemp rope anchors are expected to remain in place for 3-5 years.*

Sheet TE1: Will the existing ditch at elevation 262 pick up most of the migrating sediments during construction and bypass the constructed sediment settling area, or will they be connected somehow?

*Fill will be placed to block the down stream end of both ditches during construction.*

Will the locations of the silt fences adequately address the sediment migration or should additional silt fences be shown along the creek?

*The creek is at the highpoint of the area, so the silt fence would not be necessary there.*

Will the strawbale filter be adequate to filter flows and hold back potential overflow?

*Ecology will review the TESCP before construction starts.*

Discuss sequencing. Which is being done first, the creek channel or the floodplain excavation?

*Sequencing is discussed on page 5-55. The settling basin will be constructed first then the creek channel.*

Sheet TE2: On Note 1 of the upper emergency overflow spillway, has the 100 GPM capacity been sized for adequacy? How will the water get to Pond C?

*These are issues addressed in the Section 402 permit, and a copy can be provided.*

Sheet L2: In floodplain zone 2 and the upland buffer zone, is shade going to be provided for the Sitka spruce and western red cedar during initial establishment?

*This is unresolved; Jim Kelly wants to talk to the Corps about it.*

In enhanced existing wetland, shouldn't the staking be done by a biologist rather than an engineer?

*Plant location staking will be done by a biologist.*



In note 6, it should be noted that care must be taken not to seed mulch collars.  
*A note reflecting this will be added to the plan.*

In the tree planting and staking detail, it needs a plan to remove all stakes after sufficient time as elapsed.  
*The staking notes and details will be removed from the plan, the size of the plant material does not warrant staking.*

#### **Appendix B – Miller Creek In-stream and Buffer Enhancements**

Sheet C2: In the in-stream project area 1, why isn't a 100-foot buffer shown on the western boundary?  
*It is not Port property.*

Sheet C3: Is the area between the relocated S 154/S. 156<sup>th</sup> Street and Miller Creek being graded? Is the existing vegetation going to stay? If the area is not being re-graded, then how will logs be brought in and placed with the least amount of impact to the existing vegetation? Access points should be shown.  
*Access points will be shown, and a note added to the plans to minimize wetland and stream impacts.*

Sheet C4: Note 5. During the re-grading of the channel, will the channel be de-watered? How?  
*Add note to see sheet TE2 and add more details.*

Sheet C5: At 42+00, is the log shown a span long? If not, then the orientation should be changed.  
*The log will be embedded, so the orientation may need to change.*

Note 2. Is tire riprap to be disposed of in a landfill?  
*Yes, the note will be changed so the tires will be disposed of properly.*

Sheet C6: Is the solid line that arches from the 212 contour line to the concrete rubble wall at 69+00 an anchor trench?  
*yes*

Sheet C7: Need detail on how to access project areas (i.e. move equipment on boards to minimize impacts to wetlands).  
*Each area will have restricted access locations. Notes on restrictions for movement of equipment for in-water work can be added.*

Sheet C8: On Section 2, the coir lift is shown on the section but is not present on the plan.  
*This will be revised.*

On Section 3, the logs on the plan view are not on present on the section.

*This will be revised.*

On Section 5, the log shown on the plan view is not present on the section. The coir lift shown on the section is not shown on the plan.

*This will be revised.*

On Section 6, the log shown on the plan view is not present on the section. Also, is the anchor trench necessary here since it is a 6:1 slope?

*This will be revised.*

Sheet C9: In typical detail of coir fabric lifts, is quantity of willow cuttings specified somewhere?

*A specification will be developed and added.*

Sheet C10: Is geotextile fabric referenced in these details installed on the surface? The geotextile fabric should be biodegradable. If this is discussed in text, then text must become part of final plan set.

*The fabric will be biodegradable.*

Sheets TE1-TE4: Should add note in notes section that states that equipment should not be driven in the streambed except where necessary to complete construction.

*This will be added.*

Sheet TE2: *Need details for stream diversion structure and flow dispersion structure.*

*This will be added.*

Need detail for the flexible ads by-pass pipe. Note that pipe should not be trenched in.

*This will be added.*

Where does the sump pump discharge water?

*The water will be pumped to a treatment pond.*

Note 6. What steps will be taken to ensure that the wetland areas will not be disturbed?

*Orange construction fencing will be used on the site to indicate areas where construction activities will not be allowed.*

Sheet TE5: On the live stake detail, what is the density of staking (feet on center)?

*He expects 12-18 inches on center.*

Sheet L1.1: Why isn't the abandoned S. 157<sup>th</sup> Place being revegetated? Is it going to be used for access to pond C?

*It may be needed for access.*

Sheet L2: Why does S.160<sup>th</sup> Street remain?

*It may be needed for access.*

Sheet L3: It is unclear how much of this area will be cleared. How were the clearing limits established?

*Clearing limits were established by identifying areas of invasive plants and the limits of clearing for project specific areas. Some of Wetland was mis-hatched, and should be dark hatched.*

Sheet L5: Why is some of Wetland R11 shown as revegetated and others are not? How were the clearing limits established?

*The sewer easement will not be revegetated.*

The replacement drainage channels buffer areas will be graded. This area should be in darker (cleared and revegetated areas) hatch.

*This will be revised.*

Sheet L5.1: Why isn't 8<sup>th</sup> Avenue South removed?

*This will remain to provide access.*

Sheet L5.2: Has an irrigation plan been put together? Is it necessary?

*They do not have a plan, but want to irrigate this area. Does Ecology need a formal plan?*

Sheet L6: Areas that are cleared and revegetated should be planted at a higher density than enhancement areas. Densities or quantities should be stated on the plan.

*A performance standard of 280 trees per acre is proposed for the buffer. In cases where some forest vegetation is present, they would supplement the existing trees with enhancement plantings to achieve this density. How will survival monitoring be performed in these areas to differentiate these two types of areas?*

May need plan to provide shade for conifers, especially near the wall.

*They will propose phasing of planting in some areas that lack suitable shade or soil moisture. Provide plan detail/notes to allow for this.*

Planting red alder seems unnecessary since it will colonize these areas by itself.

*They agree that red alder will colonize the mitigation area but to provide the greatest assurance that performance standards for trees is met they will be planted.*

On tree planting and staking detail, the plan needs to state when the stakes will be removed.

*They will probably remove the stake details all together.*

Sheet P2: Approximate locations of the sandbags and the abutments to be removed should be shown.

*They will show them. The creosote timbers define the stream bank. TESC controls will be in place for the timber removal, to minimize sediment mobilization.*

The plan seems to conflict with the building/demolition sequence. The abutment is located within the limits of the existing bridge and road. How can the road continue to be used while the new one is constructed?

*The construction and traffic phasing can occur as shown. The bridge abutments can be built in phases.*

#### **Appendix D – Replacement Drainage Channels and Restoration of Temporarily Impacted Wetlands**

Sheet C3: The relocated S. 154<sup>th</sup> Street may severely impact the hydrology of the remaining downstream sides of Wetland 11 and Wetland 9. Where or how will the hydrological support be provided to these wetlands after construction?

*This was over looked and not discussed during our meetings. Please address this issue.*

Sheet C5: How will a single-point discharge at the flow monitoring location provide for the hydrologic needs of the entire wetland west of the ditch?

*There are spalls along the channel which allow for seepage along the length of the drainage channel, and also the flow spreaders that would provide for more control of the rate of discharge. I asked for more information and drawings associated with the drainage channels.*

Sheet C6: Is the dark hatched area in the vicinity of Wetlands R9a, R10, R11, A10, and A11 being graded? Is this area going to be revegetated? Please clarify.

*Clarifications to the plan will be made.*

Sheet C7: How will water get to Wetland 44a after the TESC channel is removed?

*Will a permanent replacement drainage channel be located here? What interim measures will be in place to provide hydrology to the wetland while temporary Pond B is located there?*

The flow monitoring locations are not shown on the stormwater management plan.

Sheet C8: How does the drainage channel discharge structure control flow to the wetland?

*How often will these structures be monitored and how will modifications be made if a problem is identified?*

Sheet L1: Shade will need to be provided for the western red cedar and the western hemlock to avoid scorching.

*Changes will be made to the plan to allow for phased planting.*

#### **Appendix E – Auburn Wetland Mitigation**

Sheet C3: Why is the slope northeast of the gravel path so steep?

*To provide overhanging habitat.*

The cuts around the mitigation area are significant. How do they compare to the off-site

mitigation (west of the proposed site and south of 45<sup>th</sup> Street NE)?

Sheet C5: Will the northernmost dirt piles on the western edge of the mitigation site be removed?

*No.*

The Sheet C6 grading plan shows proposed contours for re-grading the SW portion of the mitigation site. These contours do not continue onto Sheet C5.

*Revisions will be made.*

Will the cut between phase 1 and phase 2 of the grading effectively drain portions of the existing wetland?

*Parametrix is assessing this and will provide a map of the potentially impacted area.*

Sheet C7: Why is there such a steep (sharp-sided) hummock on the finish grade of Section 1? *To provide overhanging habitat.*

Sheet C8: On Section 2, are culverts needed at the low points?  
*A note will be added to the plans to include culverts at the low spots.*

On Section 3, will the perforated pipes sink into the substrate and become blocked? Is the prepared sub-grade compacted?

*The engineers will check this.*

On Section 6, the gravel paths could be a hydrologic flow impediment. Will there be any culverts at the low spots?

*A note will be added to the plans to include culverts at the low spots.*

Sheet TE1: On Note 8, has the sediment pond been sized?

*The stormwater plan will be provided.*

There is no discussion on the dewatering except in the text on page 7-50. Sheet C2 (Appendix E) shows the discharge point located along a ditch, which is slated to be recontoured. What about erosion? Can the ditch handle the maximum flows that may be encountered? Will it create downstream erosion?

*They could line the ditch with Visqueen and quarry spalls. Additional details regarding this can be provided.*

Text also discusses two retention ponds that are not shown. Shouldn't Area 1 have a sedimentation pond?

*This has not been resolved yet. The Corps also brought it up in their comments.*

Text discusses phasing the construction. Shouldn't this be reflected on the plan? What about timing?

Page 7-47 of the text discusses major construction activities limited to a period from

October 31 to March 31 to avoid winter bald eagle. Is this a typographical error?  
*Yes, and it will be changed.*

Ditch in NW corner is supposed to be the only outlet to the site. How will sediment be contained in the ditch during construction?  
*They could line the ditch with Visqueen and quarry spalls. Additional details regarding this can be provided.*

Sheet L5: The southern plant pattern layout reference area is on a steep slope. Is this a good choice for a pattern layout area?  
*This will be looked at, and they will make sure that the layout areas encompass some of each planting zone.*

Sheets L7 and L8: No plant pattern layout reference areas are shown on these plans. If these areas are planted at different times, then reference areas will be necessary each time the areas are planted.  
*Revisions will be made to the plans to show plant pattern layout areas for each phase*

Sheet L9: In areas of flooding or ponding, hydro-seeding will not be a viable option unless water levels can be brought up as the vegetation matures. Hydro-seed specifications are needed in the plans.

*A note will be added to the plans so that ponded areas or areas that are anticipated to be ponded shortly after planting will be planted with plugs representative of the seed mix specified. Hydro seeding specifications can be added.*