

PUBLIC COMMENTS, AND WDNR RESPONSES, ON
ALTERNATIVE FEASIBILITY STUDY
FINAL CREEK, SETTLING PONDS, AND
SPOILS DISPOSAL AREAS
BADGER ARMY AMMUNITION PLANT

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Introduction

The Army's proposal for the "Alternative Feasibility Study, Final Creek, Settling Ponds, and Spoils Disposal Areas, Badger Army Ammunition Plant" (Settling Ponds AFS), dated August 2012, was received by the Department on October 5, 2012. The Department of Natural Resources (WDNR) responded with its Preliminary Determination, dated February 7, 2013. A public comment period began with the release of this Preliminary Determination and ended on March 11, 2013. This document is a compilation of the comments received and associated responses from the WDNR.

Many of the comments received addressed multiple concerns. The WDNR identified 6 main topics from the comments. They are: completeness of the investigation; greater clean-up standards; ecological risk; wetland protection and clean-up/restoration; Badger Reuse Report values; and use restrictions. Comments are separated into groups based on the primary topic of each comment. WDNR made every effort to ensure that all of the concerns were addressed. The general support comments are listed under categories. For the most part, the comments were presented verbatim, with little to no editing. The comments from CSWAB and its consultants were addressed separately due to the volume and complexity of the comments.

Concerns

Completeness of investigation

Soil Investigation

The horizontal degree of contamination has been adequately defined; soil samples from over 1,000 locations have been analyzed. Given the way waste water was processed and the subsequent transport of the contamination, the definition of the vertical extent of contamination appears to be defined.

Groundwater Investigation

The groundwater investigation for the parcels considered in the Final Creek, Settling Ponds and Spoils Disposal Areas Alternative Feasibility Study is complete. The vertical and horizontal extent of the contamination has been defined. In addition, groundwater data from the site indicates the settling ponds area does not appear to be impacting groundwater quality. The groundwater flow direction is generally to the south over this area. The observation wells to the south of the settling ponds (down gradient) have lower concentrations (same order of magnitude) of contaminants when compared to the wells to the north (up gradient) of the settling ponds. If the settling ponds were impacting groundwater

quality, the groundwater contamination would be expected to be greater down-gradient of the settling ponds area.

The on-going groundwater investigation outside of the area considered in the Settling Ponds AFS is not within the scope of this work and therefore will not be addressed.

Greater clean-up Standards

The WDNR Bureau for Remediation and Redevelopment operates under a comprehensive set of state laws. These provisions authorize the WDNR to promulgate and implement requirements for environmental clean-up projects, including general and site specific standards. These requirements must be met in this instance, prior to the closure of a project. The responsible party (the Army) selects a remedy. The WDNR reviews the selected remedy and if it is found to be appropriate, then the WDNR cannot require a responsible party to do more than this remedy. These are the boundaries within which we must operate.

There are at least three scenarios that are used to establish clean-up levels: Residential; Industrial; and Recreational. The significant difference between them is the exposure frequency, or the amount of time one could be in contact with the contamination. These scenarios are based on the future use of the property. In the case of current Badger Army Ammunition Plant (BAAP) property that will be transferred to WDNR and former BAAP property currently owned by WDNR, the future use will be recreation. This property is being transferred from the Army through the National Parks Service (NPS) to WDNR. A written agreement between the WDNR and NPS directly states that the property shall not be used for residential purposes and it indirectly states that the property cannot be used for industrial purposes. Given the property's intended use is recreation only, it is appropriate to apply a recreational clean-up goal.

Clean-up goals are calculated based on the chemical and toxicological data of the contaminant and the environmental setting. Clinical laboratory research is conducted to derive the inputs for these calculations. These goals are based on the most sensitive populations, including pregnant women and the elderly, and special considerations are made for children. These goals are intended to be protective of all demographics of the population for direct contact with contaminated soil.

However, there are other exposure pathways to consider. One pathway of human exposure is through consuming animals that live on this property, such as whitetail deer. This pathway and the pathways for ecological risks have been evaluated. If the recreator clean-up goals are such that an unacceptable human health risk is present via this pathway, then more stringent clean-up goals will be used. WDNR worked with its own ecological risk specialists as well as formally working with the State Division of Health Services. The results of this work

indicate that there is little potential risk associated with consumption of wildlife harvested at BAAP.

Another potential exposure pathway would be increased exposure frequency for park workers and state employees. In this scenario, the park worker could be at a location of soil contamination more than the assumed days that an expected recreator would be. However, by evaluating the work conducted by park employees, and looking at OSHA standards for the potential contact with the contaminants, there is little concern that a park employee would exceed the exposure frequency.

Lead

In the Settling Ponds AFS, the Army notes that it is using the lead clean-up goal included in ch. NR 720, Wisconsin Administrative Code for an Industrial facility (500 parts per million). This level has been updated by US Environmental Protection Agency (USEPA), and will soon be revised in ch. NR 720, Wis. Adm. Code. The current USEPA screening level for lead is 400 parts per million for a residential setting, and 800 parts per million in an industrial setting.

The Army's proposed clean-up level of 500 parts per million is appropriate for the recreational use at the future Sauk Prairie Recreation Area and will afford protection to all segments of the population.

DNT Isomers

There is no need to sample for all six isomers of dinitrotoluene (DNT) in the soil at Badger Army Ammunition Plant (BAAP). There are several reasons this sampling is unnecessary, from the physical nature of how DNT is produced to the remediation of DNT on-site.

The production of all of the nitrotoluene compounds starts with the nitration of the seven-carbon organic compound of toluene (methylbenzene). In a simplified view of this process, nitro (NO_2) groups are added to the toluene molecule. The process produces nitrotoluene, then dinitrotoluene (two nitro groups) and if three nitro groups are added to the process the final result is trinitrotoluene (TNT). This process takes significant energy; it does not happen naturally. As stated earlier, toluene is a seven carbon molecule. The location of the specific carbon molecule to which a nitro group attaches is determined by the properties of physical chemistry. Because of the electrical charges of atoms involved and the repulsion of like charges, the nitro groups have a higher probability of being located on the five carbons of the benzene ring; a sixth carbon has an attached methyl group. The result of this is that 95% of dinitrotoluene is either 2,4-DNT (76%) and 2,6-DNT (19%). The other five percent is split between the other four isomers of DNT.

It is important to understand that the nitration process did not take place at BAAP. All of the DNT used at BAAP was shipped there as an already

manufactured product. This manufactured DNT is called technical grade DNT. The standard manufacturing for technical grade DNT is 98% 2,4 and 2,6-DNT. To maintain the best quality of the end product, the components used to produce technical grade DNT must be strictly regulated.

The nitro groups on a DNT molecule cannot shift from one carbon to another naturally. DNT does degrade through physical weathering and bio-degradation, but nitro groups do not shift, changing the DNT from one isomer to another. Because the initial amount of the four isomers of DNT other than 2,4 and 2,6 were not manufactured at Badger, naturally or manufactured, the amount of these isomers are limited, the ratios in the environment will not change, and, as importantly, the percentage of these isomers is significantly less than the other two isomers.

Although there are some variations in the physical characteristics of the isomers, for the most part they are very similar; these minor variations occur mostly in area of solubility and reactivity. Because these isomers are so similar in properties, the isomers cannot be distinguished in the field. Any remedial action taken to abate 2,4 and 2,6-DNT would also abate any of the other isomers without distinction. If an area on-site had elevated levels of 2,4-DNT so that an excavation was conducted, all six isomers would be excavated, therefore reducing not just 2,4 and 2,6-DNT, but all isomers. This concept also applies to the implementation of an engineered control such as a cap to prevent contact and prevent dissolution via groundwater infiltration.

All six isomers of DNT are regularly analyzed in groundwater samples. This alleviates any concern for the groundwater pathway due to the slight variation in solubility.

In summary, no nitration of toluene was conducted at Badger, the only source of DNT being the use of technical grade DNT or through munitions produced at other facilities. Because of the very similar nature of all six isomers and the fact that the percentage of the 2,4 and 2,6-DNT isomers are so much higher than the other four DNT isomers, any remedial actions taken at Badger would have the same effect on all isomers. And finally, all six isomers are monitored in groundwater. The end result is there is no need to sample all six isomers in the soil at BAAP.

There are no standards in the USEPA generic tables for soil clean-up standards for any DNT isomers other than 2,4-, 2,6- and a 2,4-, 2,6-DNT combination. The reason has to do with the lack of toxicological data and information for the other four isomers. Regardless, based on the discussion above, WDNR believes there is no need to analyze soil for the other four DNT isomers.

Ecological risk

WDNR's soil clean-up standards of chapter NR 720, Wisconsin Administrative Code, include several requirements related to soil contamination impacts on ecosystems. Section NR 720.07(1)(c)3., Wis. Adm. Code, includes a requirement to ensure that residual soil contamination will not concentrate through plant uptake and adversely affect the food chain. Section NR 720.19(6), Wis. Adm. Code, includes a requirement that responsible parties shall consider human food chain and terrestrial ecosystem pathways of exposure when a concern.

Assessing ecological risk had been done for the area of the Settling Ponds and Spoils Disposal Areas (the Area) by the Army in the past, but additional work was considered necessary after review of this past work. An ecological risk assessment (ERA) re-evaluation was conducted in 2006 and a final report was submitted to WDNR in November 2009. The overall risk conclusion of this Baseline ERA (BERA) was that "wildlife such as songbirds, raptors, and carnivorous mammals" that are utilizing the Site [the Area] as habitat are not being harmed by site-related contaminants". In a September 2, 2010 memo, a USEPA ecologist who reviewed the final BERA concluded that the scientific approach taken in the BERA work was reasonable (adequately conservative) and the risk conclusions are acceptable.

WDNR's group of three ecological risk reviewers did not reach a final conclusion about the findings of the BERA, although the informal opinion of the group was that it did not object to the BERA conclusions but that additional information would be beneficial. Since 2010, the Army has excavated soil in the Area so that the remaining soil contaminant levels will meet proposed remediation goals. The excavated soil was transported to the licensed landfill on the BAAP property. Based on the WDNR reviewers' initial opinion and the subsequent remedial actions taken by the Army, WDNR regards the final BERA conclusions to be reasonable and that no additional work is necessary.

WDNR requested Department of Health Services, Division of Public Health (DPH) to evaluate the risk to humans through the food chain posed by the soil contamination of the Settling Ponds area. Of the contaminants of concern in the soil of the area, only lead and polychlorinated biphenyls (PCBs) are known to bio-accumulate in the food chain. The evaluation concluded that these two soil contaminants pose no risk to the human food chain, based on the conservative evaluation using soil contaminant concentrations in the Area's soil prior to the remedial excavations of contaminated soil.

The conclusions of the BERA as well as the conclusions of the USEPA review, the WDNR review, and the DPH review will be considered at the time of WDNR review of a closure request from the Army for the Area.

Wetland protection and clean-up/restoration

Evaluation/delineation

An evaluation of Final Creek, the Settling Ponds (One through Four) and the Spoils Disposal Areas was conducted by the WDNR to identify wetlands. The evidence of hydric soils and plants indicative of wetlands was found only in portions of the Settling Pond basins. These wetland indicators were more prevalent closer to Lake Wisconsin.

A detailed delineation of the wetlands will be conducted as needed. If any additional work is conducted in these areas, such as the removal of three weir dams, a wetland delineation will be completed in these areas in accordance with Departmental policy.

Future work and permitting

All future work will be preceded by an delineation of the wetlands, a review of a work proposal and proper permitting as deemed necessary by state and federal regulations.

Gruber's Grove Bay

There are air photographs circa 1937 that show open water that extends north from existing Gruber's Grove Bay to the northwest end of what has been designated Settling Pond 4. This settling pond is now dissected by Department of Transportation land (State Trunk Highway 78) and the old Highway 78 road bed that is now adjacent to a municipal road.

Badger Reuse Committee Final Report (contamination clean-up (Value 2), clean-up and restoration of wetlands)

The WDNR will follow the intent of the Values and Criterion of the Badger Reuse Committee Final Report. However it must be noted that the Values are suggestions and not mandates. Furthermore, Value 2 is not a quantitative clean-up goal or standard. As has been stated previously, the use of a recreator scenario for future WDNR property for calculating the clean-up goals has been used and is appropriate. It is also important to note that the remediation (clean-up) process and the Master Planning process are independent activities.

Closure with use restrictions (possible recreational uses may be prohibited)

The Army has proposed several soil contamination remediation goals for Final Creek, the Settling Ponds, and the Spoils Disposal Areas, based on the anticipated future land use of recreation. In addition, the Army has also proposed other, lower, more conservative remediation goal concentrations for the Area based on human exposure assumptions associated with an industrial setting, even though the anticipated land use is only recreational with associated lower levels of exposure. If the Army's remedial action of soil excavation results in contaminant concentrations that are at or below the remediation goal

concentrations, few or no land use restrictions will be necessary for recreational use of the Area. A report on the Army's remedial action will be submitted to and reviewed by WDNR in the future.

Concerns expressed in the comments about the Settling Ponds area being closed with use restrictions appear to be based on misinformation. It has been incorrectly asserted that camping and prairie and wetland restoration would be prohibited activities due to remaining soil contamination concentrations. Camping is a recreational activity so it would not be prohibited because the Army will be remediating the soil contamination to concentrations that will not impact the health of people of any age recreating within the Area. Camping was excluded from the Sauk Prairie Recreation Area Master Planning process due to the camping opportunities at nearby Devil's Lake State Park combined with the lack of suitable camping locations within the low elevation of the settling ponds, not because the clean-up will not be protective of human health for this activity. In addition, prairie restoration has been a primary objective of the Department in the Master Planning process for the Sauk Prairie Recreation Area. Restoration activities will not be prohibited; however there may be some precautions implemented when these activities are conducted.

HydroGeoLOGIC Response

- 1) The Army states groundwater contamination from the settling ponds was ruled out because “depth to groundwater is approximately 10 to 80 feet below ground surface.” **The depth to groundwater does not preclude the transport of contaminants through the soil and into groundwater in the settling ponds area, especially given the length of time in which the soil contamination has been in place.** Other areas of the BAAP have documented groundwater contamination from disposal of these same contaminants at similar depths.

Response:

It is likely that contamination from Badger that was transported to the Settling Ponds did contribute to groundwater contamination in the past. However, indications are that it is no longer contributing to groundwater contamination and it would be very difficult to determine the extent to which the soil contamination contributed to groundwater contamination. The current concentrations of soil contamination do not exceed the soil to groundwater pathway clean-up goals and groundwater sample analytical results indicate no impacts have occurred from the Settling Ponds soil.

- 2) The Army states that soil contamination is “primarily” limited to the shallow soil interval. **Given the fate and transport of DNT, it is likely that an excessive amount of soil contamination has leached through the sediments and soil, and exists in areas below the shallow soil interval (0-4 feet bgs).** With a site as large as the BAAP, even the ‘non-primary’ contaminants (in this example, those not limited to the shallow soil interval) can be significant, in volume and/or concentration. It is prudent to identify and address these potential sources of groundwater contamination through a complete site investigation encompassing more than the “extent and degree of shallow soil contamination”.

Response:

Given the chemical characteristics of DNT and the transport mechanism in the Settling Ponds, the concern in this area is direct contact with soil by humans. The groundwater pathway has been evaluated and found to not be a concern, as stated above. If the soil contamination appeared to be contributing to groundwater impacts, then it would be appropriate to investigate deeper soils. But, given there are few to no impacts to groundwater quality, the only pathway that needs to be evaluated is the direct contact pathway (zero to four-foot bgs).

- 3) **State of Wisconsin Administrative Code specifically states that an investigation must define the degree and extent of contamination. The Alternative Feasibility Plan has not met this requirement, to the Army’s own admission (see bullet 2, above).** As stated on the Department’s R&R webpage, “The cleanup must address the full extent of contamination in soil and groundwater...”. It does not appear that the investigation conducted at the settling pond area complies fully with the intent of Wisconsin Administrative

Code NR716, which directs responsible parties to identify the “nature, degree and extent of contamination”, including soil and groundwater.

Response:

This is a continuation of Concern #2, and has been addressed in the respective response. In addition, note that this requirement will be addressed following the submittal of updated soil analytical results.

- 4) **The Army indicates that the “contaminants in soil are not leaching to groundwater”. The transport of these same contaminants in other areas of the BAAP has been identified. Clarification is needed as to why the Army indicates that the contaminants have not leached to groundwater in the area of the settling ponds.** In addition, given the low tendency for DNT to adsorb to sediments and soil, there is an increased likelihood that contaminants from the settling ponds were historically transported to groundwater. As stated by EPA:

“the relatively low log K_{oc} values for 2,4-DNT and 2,6-DNT indicate that these compounds would have only a slight tendency to sorb to sediments, suspended solids, and biota. Therefore, there is potential for transport via surface water or groundwater.” (USEPA Document 822-R-08-010, Drinking Water Health Advisory for 2,4-Dinitrotoluene and 2,6-Dinitrotoluene, January 2008).

Response:

Most contaminant transport models start with the contaminant being released to the environment directly to the surface or subsurface soils. After this deposition, precipitation, such as rain water, infiltrates through the contaminated soil causing some of the contaminants to leach to groundwater. This would be the first contact the infiltrating water would have with native soils and then have a potential for contaminant migration to groundwater. The soils in the Settling Ponds are “once removed” from this model. The runoff water came into contact with native soils where contaminants had been released. (These source areas have been investigated, and remediated, if necessary). The contaminated material (native soil and contaminated runoff) was then flushed to the Settling Ponds (i.e., secondary transport). Infiltration from the Settling Ponds to subsurface soils would then be tertiary transport. It is unlikely that there would be significant contamination available for tertiary transport, as seen with the lack of evidence of the contribution to the groundwater contamination.

Note that the above would apply to some water flowing through the Settling Ponds (for example, from Main Ditch). In addition, a much larger volume of water was flowing through the Settling Ponds from the process and sanitary sewers of the facility.

Regardless, considering the groundwater pathway noted in this concern, groundwater analytical results do not indicate that groundwater quality is or has been in recent years impacted by the soil of the Settling Ponds area.

The Army states that both the storm water and wastewater carried through the Main Ditch historically included “metals and propellant constituents which were

deposited into the shallow sediment and soil”. This would indicate that site storm water runoff may have also contributed to shallow surface contamination in other areas surrounding the settling ponds in addition to the “ditches and ponds” as identified by the Army. Over 70 years, contaminants may have leached into the soil at various depths across areas of the site; has a significant enough evaluation been conducted of these shallow soils? It is unlikely that each of the historical runoff areas has been adequately defined. The potential of soil contamination beyond that previously identified warrants reconsideration of a remedial cap.

Response:

The “ditches and ponds” were utilized by the Army to provide a consistent drainage for the process and waste water. These ditches were monitored and at times modified to ensure proper flow. It is very unlikely that they would have been breached or otherwise would have directed contaminated water to alternative locations outside of the ditches.

CSWAB

Ecological Concerns

WDNR’s soil clean-up standards of chapter NR 720, Wisconsin Administrative Code, include several requirements related to soil contamination impacts on ecosystems. Section NR 720.07(1)(c)3. Wisconsin Administrative Code includes a requirement that residual soil contamination not concentrate through plant uptake and adversely affect the food chain. Section NR 720.19(6) Wisconsin Administrative Code includes a requirement that responsible parties shall consider human food chain and terrestrial ecosystem pathways of exposure when a concern.

Assessing ecological risk had been done for the area of the Settling Ponds and Spoils Disposal Areas (the Area) by the Army in the past, but additional work was considered necessary after review of this past work. An ecological risk assessment (ERA) re-evaluation was conducted in 2006 and a final report was submitted to WDNR in November 2009. The overall risk conclusion of this Baseline ERA (BERA) was that “wildlife such as songbirds, raptors, and carnivorous mammals that are utilizing the Site [the Area] as habitat are not being harmed by site-related contaminants”. In a September 2, 2010 memo, a USEPA ecologist who reviewed the final BERA concluded that the scientific approach taken in the BERA work was reasonable (adequately conservative) and the risk conclusions are acceptable.

WDNR’s group of three ecological risk reviewers did not reach a final conclusion at the time about the findings of the BERA, although the informal opinion of the group was that it did not object to the BERA conclusions but that additional information would be beneficial. Since 2010, the Army has excavated soil in the area so that the remaining soil contaminant levels will meet proposed remediation goals. The excavated soil was transported to the licensed landfill on

the BAAP property. Based on the WDNR reviewers' initial opinion and the subsequent remedial actions taken by the Army, WDNR regards the final BERA conclusions to be reasonable and that no additional work is necessary.

WDNR has requested Department of Health Services, Division of Public Health (DHS) to provide an evaluation of the risk to humans through the food chain posed by the soil contamination of the Settling Ponds area. Of the contaminants of concern in the soil of the area, only lead and polychlorinated biphenyl (PCBs) are known to bio-accumulate in the food chain. The DHS conclusions are that these two soil contaminants pose no risk to the human food chain, based on the conservative evaluation using the highest clean-up levels for soil contaminant concentrations.

The conclusions of the BERA as well as the conclusions of the USEPA review, the WDNR review, and the DPH review will be considered at the time of WDNR review of a closure request from the Army for the Area.

Hexavalent Chromium

Two concerns were raised with regard to chromium. Why were no hex/trivalent differentiated chromium samples taken? And, the levels of total chromium are not restrictive enough to protect human health and the environment.

First, there are no known sources at BAAP for hexavalent other than naturally occurring chromium. There was no production or processing of stainless steel at the site. The only potential source would have been the construction of the infrastructure where some welding and grinding of stainless steel could have occurred, but on very limited levels. There was no treatment of wood or wood products on site, there is no record of any plating activities, and there have been no production or disposal of primers, fuses and projectiles, including warheads at this site. The production of propellants does not include chromium as a catalyst and there are no sources of metals of any kind in the components used to make propellants. Again, there are no process sources of hexavalent chromium.

Chromium has been found in areas of "live fire" ranges and areas where munitions were disposed of. For example, the thermal treatment of small arms munitions is a source of hexavalent chromium. A primer component of small arms consists of a cup filled with a primer paste and a small "anvil" that is placed inside the cup over the paste. Both the cup and anvil are frequently chromed to protect the cup and anvil from the caustic nature of primer paste. In this case there is a source of chromium. Primers were not produced or disposed of at Badger. CSWAB's list of areas where elevated hexavalent chromium were found at other sites, their corresponding activities at these sites do not match the activities at Badger. In addition, there was no thermal, detonation or deflagration of any munitions or munitions components in the Final Creek, Settling Ponds and Spoils Disposal Areas. The only areas where propellants were disposed of is in

the Deterrent and Propellant Burning Grounds. There is no direct or indirect association of these two areas and the Settling Ponds area.

Hexavalent chromium is a carcinogen through the inhalation pathway only. It must be inhaled to be a risk. There is limited risk for ingestion (non-carcinogen) and no risk for absorption. It is possible that there is hexavalent chromium in the Settling Ponds area. However it would be there naturally. Furthermore, it would be remediated as any other form of chromium if the total chromium exceeded the site standard of 35.5 ppm. An estimate of 5 to 10% of total natural chromium is hexavalent. Given the worst case of 10% and the clean-up level of 35.5 ppm would mean that there could be as much as 3.6 ppm hexavalent chromium. This level is below the 5.6 ppm EPA level for hexavalent chromium (industrial). This does not take into account any natural reduction of hexavalent chromium to trivalent chromium.

The low level of chromium in the Settling Ponds area is very unlikely to become air-borne to then become inhaled, given the amount of vegetative cover. The groundwater at and around Badger does not contain excessive chromium, considering that hexavalent chromium tends to be more soluble than trivalent chromium. In addition, the levels found at Badger are not greater than natural or background levels found statewide by a study done by the USGS. Given this information, the site standards for chromium are reasonable and protective of human health and the environment and there is no need to sample for differentiated hexavalent chromium.

Appendix 1

Greater Clean-up Levels

The Badger lands should be cleaned up to a level that does not restrict future use and poses no risk to people and the environment including soil, water, air and biodiversity. Wetlands should be restored and should include the broadest range of native floral and faunal species. It is important to comply with the values and criteria of the Badger Reuse plan not to mention the terms under which the state received the land from the federal government.

The Badger Reuse Plan is not something to be ignored. Without the work done by the Badger Reuse Committee, there would be no land to discuss. It is time to put politics aside and abide by the plan worked out by Sauk County, the Ho-Chunk Nation, local municipalities, and the state of Wisconsin including dedicated DNR administrators. (Mary Zenker, Sauk City, WI)



I urge you to make sure that the final clean-up of the Badger Army Ammunitions Plant is of the highest possible quality. To have come this far with the clean-up and to not finish the job completely, would be a shame. We have damaged the land; I believe that it is our responsibility to bring it back to its original state of health. You have the power and are in a position to do what's right for the land, the water, the animals, and present and future generations who visit Badger.

Please restore the wetlands so that native flora and fauna can return and thrive. You have a unique opportunity to do something wonderful here at a time when wetlands are being threatened or destroyed around our state. We are at a crucial time in history; the decisions we make will make a difference one way or the other. (Patricia Kelly, Baraboo, WI)



My wife and I moved from Illinois to Wisconsin about 2 years ago. We moved here because we liked the land in Wisconsin better than Illinois. We bought a lot on Lake Wisconsin and built our dream retirement house. Now we learn that there are all kinds of problems with the Badger land that will effect us forever. I would like you and your department to force the Army to do what they should have done in the past and clean up the entire site "NO QUESTIONS ASKED"!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! They knew what they were doing and now they expect to "bail out" and leave us with all the problems.

THAT IS A VERY NICE PIECE OF PROPERTY THAT SHOULD BE CLEANED UP COMPLETELY SO THAT WE AND OUR CHILDREN AND GRAND CHILDREN CAN USE IT FOREVER WITHOUT HAVING TO WORRY ABOUT CONTRACTING ANY TYPE OF ILLNESS WHAT SO EVER!

(Mickey Bauer, Merrimac, WI)



I am writing to advise that cleanup of the Settling Ponds should be consistent with proposed use of the land as a recreation area, not degraded to standards for a rifle range use only. That usage may not happen or may not endure for a lengthy time. Once the army is allowed to leave, my guess is that we will NEVER be able to get them back to provide any additional cleanup, so things had better be taken care of now so the state will not have huge problems/expenses down the road. This is only common sense. Please press on for the best possible cleanup of this area so it can be an asset for our state. Thank you.
(Wendy Carlson, Sauk City, WI)



I have been working on prairie restoration at the old Badger Army Plant for many years now. Together with other volunteers, I have put in hundreds of hours pulling honeysuckle, cutting autumn olive, clearing garlic mustard and wild parsnip in an effort to allow native prairie plants to once again grow in this area.

Now I hear that this area, part of parcel "M", is not going to be cleaned up to the standards for public use. Some say it will become a shooting range or home to off-road vehicles. This would be a travesty. We all agreed to the Reuse Plan, including the DNR, and it calls for the land to be cleaned up to the highest standard.

This is a lovely, wild area of the plant, and it has received years of loving care from volunteers with the Sauk Prairie Conservation Alliance. Please continue the conservation and restoration work that has already been done there. This is what natural resource work is all about, after all.

(Mimi Wuest, Reedsburg, WI)



We live next to Badger. We do not want the Army to take any short-cuts with cleanup and restoration of Badger. We would like it done in a safe way that is acceptable for future generations

(Ed & Virginia Krumenauer, Prairie du Sac, WI)



The Badger site needs a thorough cleanup. A child learns to put it's toys away and clean up. The Army can show a little maturity and be responsible

(Jim Limbach, Unstated)



I call for additional cleanup of residual soil and sediment contamination. I believe that cleanup can and should be more protective and allow for unrestricted future use. This level of cleanup is supported by the Badger Reuse Plan – a cooperative agreement developed and endorsed by local, state, federal and tribal interests at Badger, including the WDNR and the State of Wisconsin.

(Mark M Giese, Racine, WI)

— — —

I write in support for greater excavation of contaminated soils, earthen capping or other measures to ensure a more thorough soil cleanup of the settling pond. Much has been accomplished in restoring this formerly productive area. The mission should be completed.

(Sherry Caves, Middleton, WI)

— — —

The State of Wisconsin has a rare opportunity to preserve, restore and protect a very important part of its ecological history for the aeons to come. I hope that its decision makers are wise enough to grasp its importance and have the understanding and principles to make that happen, leaving a tremendous legacy to future generations.

(Eileen R. Luetscher, Reedsburg, WI)

— — —

Please count me as a Wisconsin citizen who supports greater clean-up of the former Badger Army Ammunitions Plant. It doesn't make sense to restore some of the land and not all. Please include excavation and removal of, or capping of contaminated soils in the DNR plan for this site. The land should be safe for future conservation activities including prairie restoration and camping. Generations will enjoy this space. Please make sure that environmental contamination here is dealt with.

(Julie Melton, Unstated)

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This letter is to express to you my support for the cleanup and restoration of the wetlands, including Settling Ponds or kettle ponds in Badger Army Ammunition Plant Areas, and that such cleanup and restoration be consistent with the Badger Reuse Plan and in accordance with the values and criteria written in the plan. I (*sic*) [am] also concerned that the native floral and fauna, so widely varied and special, be restored, preserved and habitats protected.

Wisconsin decision makers seem to lose sight of the value of wetlands to our ecology, environment and climate. Wetlands seem to be viewed as expendable and can either be filled in or mitigated without much consideration for the future health of our environment. Such thinking is very disturbing to me. Not only are wetlands valuable for natural filtration of our waters and the wildlife habitat they provide, with woodlands and forests diminishing and more lands converted to industry, commercial use, housing and paved streets and parking lots, draining water pours into storm sewers, rivers and creeks, increasing the areas that are being flooded in heavy rains. Wetlands or other "buffer" riparian areas are Nature's way to control itself. I believe much more consideration must be taken and policies changed so that more and more of the natural wetlands in our state are preserved and restored and no more are filled in, paved over or so called "mitigated".

We have spent enough time together at RAB meetings for you to know that I will make comments, they won't be 25 words or less and are based on the science that has been presented and the common sense I was born with according to my Mother.

Mom's principles apply- You made the mess - you clean it up. It is better to do it right the first time and be done with it. Do not sweep it under the rug / bed because it will come back to haunt you! - A very wise woman.

I started on the BEBA Board and then transitioned to the RAB 15+ years ago and have spent hundreds of hours at meetings, reading proposed material & research (not enough available) is available. I know way more about contamination, pollution and the effects they cause of the average person. And yes, through the years I became acquainted with and active with CSWAB. This was out of necessity because my questions and concerns were not being addressed by the Army. "We don't know" is not an acceptable answer!

Since Badger is not the only contaminated Army site, wouldn't it have been (*sic*) [better] to do research and find out what the cumulative effects are for the "toxic stew" in relationship to the environmental, human and "critter" health?

We have standards for groundwater DNT's ~ all 6 isomers but not for soil. And how does contamination migrate to groundwater? – Through the soil! There is already too much land at Badger that is restricted (The skull and crossbones signs!) on the site. For well over 5 years, as a RAB member I have repeatedly requested (from the Army) and have not received a map of Badger with the restricted sites clearly indicated. (A map is well worth over 1000 words.)

Fortunately for the citizens CSWAB exists and once again was able to engage Environmental Stewardship Concepts, LLC to review the proposed changes. It's ironic when this is necessary when we have State and Federal agencies whose job is to do this. I have a great deal of respect for Dr. du Fur and the work he does.

Clean up to the highest standards not cover up. The Settling Ponds Area is a wetland and should be respected as such. Mother Nature has a way of reclaiming the land – not always the way we humans plan.

There is also a rumor circulating that this land could possibly be the site of a shooting range. You've got to be kidding me!!! The former Badger shooting range was cleaned up several years ago, we don't need another one. There are several well run gun clubs in Sauk County and they have the manpower, knowledge and liability insurance to run them.

Bottom line, stay with the original 1994 clean up goals, not the Band-Aid (Alternative Feasibility Study) proposal that is cover up. When the Army leaves they won't be back – laws or no laws. Do (*sic*) [what] is right the first time and be done, we owe that to future generations.

P.S. And ask yourself why (when we're in the 11th hour of this long clean-up process) would the Army disregard their own RAB By Laws and attempt to disband our very active RAB. I have my theory – what's yours?
(Mary Carol Solum, Merrimac, WI)

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When the stakeholders worked through their numerous meetings during the facilitated Badger Reuse process, there were public comment periods before and after the business agenda items. Time after time, those who spoke mentioned how we were not fully aware of future impacts when the munitions plant was in operation. They mentioned

how we were generally unaware of future impacts of chemicals - so unaware that trucks went up and down community streets spraying chemicals to control mosquitoes to prevent outbreaks of malaria and children ran behind them, frolicking in the spray. It was common for farmers to drain their tractor oil on the ground behind the barn and in town do-it-yourself mechanics pulled the plug and let old oil flow down the gutter to the storm drain. Lots of stuff went down the storm drain because we did not understand chemicals. People sprayed without protective masks, mixed field and yard concoctions without gloves. We did not even know enough to protect ourselves.

We're all a bit more educated now. Some we've learned from doing and the unintended consequences. One major thing we've all learned is that we don't know what we don't know and that continues to be the issue.

We don't know the quantities of contaminants that are out there. We don't know how they interact or if they interact, even in minute quantities - but we do know when we figure it out, it's often too late. We also have learned too often we could have done something simple and avoided terrible pain. We do know contaminants for munitions production are still in the soil and some are entering the Wisconsin River. We know there are contaminants in private drinking water wells which is why people may be going on to municipal water. But that well is down gradient of Badger. We don't know what time will tell. It took a while before we realized the impacts of DDT on Bald Eagles. We had to accept the reality first.

This is precisely why the people who made comments told the stakeholders around the table they wanted contamination cleaned up to the highest level. They did not want any part of the land to industrial level. They wanted the highest clean up level to keep options open for future generations.

Furthermore, when Scott Klug and his committee recommended 2% of the land be set aside for threatened and endangered species, the first question people began to ask was, "How does that threatened or endangered species know what part of the land that 2% is?" They realized the absurdity of the notion of dividing up the land by percentages of clean-up. It all must be cleaned to the same level - the highest level - for future users. And they realized we'd learn a lot about our values and dedication to those not yet born, and they'd possibly appreciate our effort. After all, we got handed a mess, a stew of contaminants, and we've had to invent ways to clean it up.

The consensus of the people who took the time to get involved as public or accepted roles as stakeholders - and they represented a broad range of interests and parts of the county, state and country - said highest level of clean up for now and for future generations.

No long range rifle range to compete with the one in Lodi. No ATV playground when there is the Bong site, places in the Dells area and state trails nearby that allow their use. If the DNR wants to get into ATV playgrounds, purchase an old quarry and make it available. Just because there are hot spots in the settling ponds at Badger does not mean it's the right thing to do to add more contamination. The right thing to do is to follow Value 2 of The Badger Reuse Plan - the highest quality clean up for all of the property -- highest value clean up for current and future users. Furthermore, the Army is responsible for the clean up - what we know of now and what we may discover in the future. If it was done during munitions production time, they are responsible. BUT if it is done during DNR time, then DNR is responsible. One reality is your budget, now and in the future. It's smart to go with the highest quality clean up and hold the Army to its responsibilities.

(Donna Stehling, Unstated)

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I request that phytoremediation for clean-up of the settling pond area of the former Badger Army Ammunition Plant meet the following criteria: 1. Removal of contaminants to a level supported by the Badger Reuse Plan cooperative agreement. 2. A timeline for removal of contaminants which promptly removes any current health hazards for humans. 3. A timeline and standard for removal of contaminants that demonstrates a long-range plan for allowance of full use of the area for human recreational and planting needs. 4. Anticipation of multiple floods and droughts within any phytoremediation plan for this area. 5. Public service announcements that would educate the public, succinctly, and in lay terms, regarding the goals, timelines, and methods of each phytoremediation project at the former Badger Army Ammunition Plant
(Nancy Peidelstein, Unstated)

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As a long time participant in the planning for the future use of the Badger Army Ammunition plant lands, I have a significant familiarity with the lands on that site. The Badger Reuse Committee Report, on which WDNR is a signatory in Value 2 states: "The US Army and/or the Federal Government complete the highest quality cleanup of the Badger property's contaminated land, water, building and infrastructure in a timely manner." Industrial level cleanup is NOT the highest standard. I respectfully request you abide by your commitment with your department's signature to the Badger Reuse Committee Report.
(Gail Lamberty, Sauk City, WI)

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In regards to the clean up of the Badger Settling Ponds and Final Creek... I would urge you to be consistent with the values and criteria of the Badger Reuse Plan.
(J. Peter Mullen, Town of Sumpter, WI)

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Please get off the political soapbox and do what is right for all of the environment and all of the future land uses at Badger. Clean it up correctly without anymore delays
(Donna Schmitz, Sauk City, WI)

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The government took this land with no thought to its eventual contamination. Build a new nuclear power plant and keep using the land as the government condemned it. Instead of paying to clean the governments thoughtless project
(aticus@charter.net)

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Dear Mr. Myers as a concerned citizen and business professional I am writing to support the complete clean up of residual soils at the Badger Army Ammunition Plant settling ponds. It is my understanding that there is a proposal that would not do a complete "clean up" and therefore restrict future use of these lands. It is my belief that these soils should be cleaned up to the point that there are no risks or restrictions in the use of these lands. It's time to the job and to do it right!

Thank you for your consideration. I hope the WI DNR will be proactive in providing all of the citizens of Wisconsin with the cleanest environment they can.
(Kirk Boehm, Deforest, WI)

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Please please adopt the Badger Reuse Plan. The people of our state do not deserve a half-way effort, when the whole solution is already known. Why let this happen?

Thanks for your work.
(Margaret Vaughan, Okee, WI)

Badger Reuse Committee Final Report

I've lost track of the exact time I've been working for the reuse of the Badger Army Ammunition Plant property as a public resource for the whole state of Wisconsin but without exaggeration 15 years would be close.

I was one of the 23 to 7 yes votes that set the Sauk County Board of Supervisors on the path that led to the adoption of the findings of Reuse Report as policy of the County.

The Wisconsin DNR was a welcome, helpful and committed participation in that vision from the start and until recently there was never the slightest indication of any hesitation or reservation from the DNR, its leadership or from any other part of the State about those goals or their long term value as a guide to the future of the plant.

For me the recent inclusion in the Preliminary Report among the potential uses for Badger described in the Reuse Report of new high impact and widely disturbing specific uses such as shooting ranges, ATV's and others came out of the blue like a sucker punch in the gut.

The path to reduced cleanup standards for the Settling Ponds area has does not fit the Reuse Report but it does fit a model scenario of political interference with the ordinary workings of the DNR.

Fitting a model does not make anything true and I am second to none in hoping that the scenario is false but it looks like the decision to use the Settling Pond area for one of the disturbing uses that recently surfaced came first and the decision to modify the clean-up criteria came after to pave the way for it. Upsetting is insufficient to cover my reactions.

I could go into considerable detail about why any of the novel proposals in the Land Analysis document are undesirable but I'll reserve that for the comment opportunity when and if the Master Plan Draft surfaces.

I can say that every one of those new ideas does not fit the Reuse Plan in any way, it cannot be made to fit now and it will never fit.

The DNR needs to support the clean-up standards and uses outlined in the Reuse Report because that is the path to the future of Badger that maximizes all of the potential values it represents to the citizens of Wisconsin.

The book, *War Horse*, which led to the recent movie of the same name also led to a stage play. That play has a theme song for which the refrain is about how we might be remembered by those who come after us. It goes: "Only remembered for what we have done."

So when the Badger story is told in years to come and the role of the DNR in that story is recounted just what will be remembered?
(Eugene Robkin, Baraboo, WI)

Wetlands

I am writing to support the cleanup and restoration of wetlands at the Badger Army Ammunition Plant consistent with the values and criteria of the Badger Reuse Plan. I believe that the U.S. Army should complete a final cleanup that does not restrict future use and poses no risk to people or the environment, including soil, water, air and biodiversity. Also, the wetlands should be restored and should include the native floral and faunal species.

(Marcia Howard, Sauk City, WI)

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The wetland restoration at Badger should be thorough. It should leave the area in a completely safe and healthy condition.

It should not be redefined. It should not be foisted off on the state. The people in that area should not be forced to live in a half-clean environment.

(Lynn Shoemaker Whitewater, WI)

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The Wisconsin Wildlife Federation is writing to ask that the Department reject the current Alternative Feasibility Study proposal submitted by the Army for the settling ponds site. We would like to see a new proposal from the Army that contains soil remedial goals which will achieve a level of cleanup at the Settling Ponds site that will be safe for recreational uses such as, but not limited to: hunting, trapping, wetland restoration (flora and fauna), bird watching, education, research, photography, and hiking. The disturbance of vegetative cover and soil from all of these activities is more than likely. Restricting use of these lands for these activities is just not acceptable.

To fully assess public interest in Sauk Prairie Recreation Area lands, including the Settling Pond area lands, we ask that the public comment period remain open until such time as future land use is decided through the DNR's Master Planning Process. A pre-determination by DNR that soil safety standards can be lowered to a point that is acceptable for one possible public use, a shooting range for example, but unacceptable for other possible public recreational uses **prior to** the completion of the Master Planning process is unacceptable. The soil safety standards should be high enough to allow just about any public use of the land. Due to the high water table in the area the

remaining soil depth is very shallow and should not be a problem for the Army to remove. Residual soil contaminants include lead, explosives, chromium and other environmental toxins that should be removed for public safety.

Please be advised that the Federation is particularly concerned about the excavation and destruction of wetlands by the Army without a Clean Water Act 404 Permit and without complying with DNR NR 103 regulations. Attached are maps of the area prior to the Army's use of the land and they clearly show wetlands to be present. An obvious first step that should have been taken by the Army is to delineate the wetlands, however, the Federation has been told that the wetlands in the Settling Ponds area were never delineated as required under these regulations. The presence of hydric soils, wetland vegetation and a nearby major riverine system are just three wetland functional values that are present in these lands. Further examination would have uncovered others. For example, a study of amphibians that would be impacted by the construction of the Settling Ponds and Soil Disposal Areas was not completed by the Army. The delineation recently conducted by DNR was accomplished after excavation and reportedly in the middle of winter with more than a foot of snow on the ground. We do not consider this delineation to be accurate or acceptable under these conditions. Certainly, no amphibians were discovered in this delineation.

Wetland restoration in the Settling Ponds area should be a top priority for the Army and the DNR. The work plan should include restoration of hydric soils, vegetative cover indicative of a meadow wetland and restoration of the hydrology in the area including Final Creek. Susan M. Galatowitsch, Ph.D. (Professor, Restoration Ecology, Department of Horticultural Science, University of Minnesota, St. Paul MN) commenting on wetland restoration practices recently said: *"Plant communities influence nutrient cycling and food webs, provide food and habitat structure to animals, and contribute to a wetland ecosystem's aesthetic appeal. Consequently, the restoration of a wetland's plant communities is often considered crucial to project success."*

The Federation sees no viable reason why public safety standards acceptable for the majority of the Badger property cannot be applied for the Settling Ponds area. The threshold for lead in soils at the Settling Ponds, for example, is set at the equivalent of the **industrial** standard or 500 mg/kg, whereas lead cleanup has been less than 250 mg/kg for the balance of the property. The Department's stated intent is to accept and approve a soil remediation goal of 500 mg/kg for lead is found in its February 7, 2013 Preliminary Determination of Feasibility for an Alternative Remedial Action for Soil of Final Creek, the Settling Ponds, and Spoils Disposal Areas of the Badger Army Ammunition Plant. This needs to be changed to the 250 mg/kg standard to allow recreational use of the land.

We are looking forward to the DNR setting the highest standards possible for public use of the lands at the Sauk Prairie Recreation Area. Why would the people of Wisconsin want anything else? Why should DNR want anything else?

Thank you for your consideration of our request and concerns.

(George Meyer and Don Hammes, Wisconsin Wildlife Federation)

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I am writing to urge you to support the cleanup and restoration of wetlands at the Badger Army Ammunitions Plant consistent with the criteria outlined in the Badger Reuse Plan.

As an area resident I am very concerned about the use of this area by my grandchildren and the children and grandchildren of others in the community. So much hard work has gone into the compromises in the Badger Reuse Plan. The endorsement by many of the local conservation organizations and others speaks to it's reasoned approach to returning the land to its former self and creating a multi-use space for generations to come. Please support our community in this regard.

(William Walter and Ann Campoll, Sauk City, WI)

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CONDUCTS A THOROUGH CLEAN UP AND RESTORATION, OF WETLANDS AT BADGER ARMY AMMUNITION PLANT THAT DOES NOT RESTRICT OR PUT ON RISK, FUTURE USE OF SOIL, WATER, AIR, AND BIODIVERSITY OF THOSE AREAS. (DIEGO F. CALDERON B. and MARIA EMILIA CALDERON, Unstated)

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I am writing in regard to the cleanup and restoration of wetlands at the Badger Army Ammunition Plant.

I am one of the original signatories to the Badger Reuse Plan, the collaborative land use plan developed and endorsed by two federal agencies, three entities of the State of Wisconsin, the Ho-Chunk Nation, Sauk County, seven local municipalities, and local businesses, landowners, and non-profit organizations. The Badger Reuse Plan, adopted in 2001, remains the guiding document for future use of the Badger property Value 2 of the Badger Reuse Plan reads as follows:

Citation Removed

In accordance with these values and criteria, and other portions of the Badger Reuse Plan, the treatment of the Settling Ponds at Badger should proceed in a manner that meets the highest possible cleanup standards, and that ensures timely restoration. The cleanup standard should further ensure that, in keeping with the Badger Reuse Plan provisions, no future activities are precluded as options in the Settling Ponds area.

(Curt Meine, Sauk City, WI)

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I'm voicing my support for the cleanup and restoration of the wetlands at the Badger Army Ammunition Plant consistent with the values and criteria of the Badger Reuse Plan.

What man has destroyed and altered from it's original state, man needs to clean up. The native environment deserves this respect as do the creatures that live in the area as well as the people (including children) who live nearby these areas.

(Theresa Bauer, Prairie du Sac, WI)

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Thank you for the opportunity to comment on the cleanup of the Settling Ponds at the former Badger Army Ammunition Plant in Sauk County. Like so many who live near the plant, I strongly favor a cleanup of the wetlands there that cleaves to the values and criteria of the Badger Reuse Plan.

A final cleanup by the U.S. Army that does not restrict future use and poses no risk to people or the environment, and that includes the broadest range of native plant and animal species, is the only type of cleanup consistent with the Badger Reuse Plan.

As I'm sure you know, the Badger Reuse Plan is a cooperative land use plan, painstakingly worked out over many years, that reflects the consensus of a very broad base of stakeholders including the State of Wisconsin, the Ho-Chunk Nation, Sauk County, local municipalities and nonprofit organizations like the Wisconsin Wildlife Federation, the Sauk Prairie Conservation Alliance and Citizens for Safe Water Around Badger.

Any cleanup and restoration plan for the wetlands inside the fence at Badger that disregards the Badger Reuse Plan risks putting the health of area citizens and the natural resources upon which all of our economic, physical and emotional well-being depends in serious jeopardy for decades, if not centuries.

(Rick Chamberlin, Sauk City, WI)

Closure with Use Restrictions

I am writing to support additional cleanup of residual soil and sediment contamination at the Settling Ponds at Badger Army Ammunition Plant. I believe that cleanup can and should be more protective and allow for unrestricted future use when these lands are opened up to the public. Institutional controls such as listing on the Department's GIS Registry for Soil and Groundwater Contamination and restrictions on land use are no substitute for cleanup. This is our last chance to really clean up and restore Badger – Let's do it right.

(Jamie Olah, Chicago, IL)

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The Department of Natural Resources has been a full and active participant since the time of the announcement that it would be surplus by Army in 1997. The Department was present at the informal talks of the time, the Department was at the table of the Badger Intergovernmental Group (BIG), and along with the Governor's Office and Department of Administration, and the Department was on the Badger Reuse Committee that developed the full Badger Reuse Plan. Indeed, that process was instrumental in the Department's acquisition of the property from the National Park Service through the Community Support demonstrated by the Department's involvement at the Badger Reuse Committee meetings. Since that time (2001), the Department has been a Commissioner and has been a full participant at Badger Oversight & Management Commission (BOMC) meetings. It has been active in drafting bylaws and other legal documents relating to Badger. The most recent of these meetings was two weeks ago, on February 28.

I was present at most, if not all, of those meetings representing Sauk County.

Here are some of the elements of the Badger Reuse Plan as pertain to this topic:

Citation Removed

I am concerned that the proposed cleanup standards for the Settling Ponds area may not be sufficient for the uses intended in the Badger Reuse Plan. It is certainly less than the remainder of the Badger property.

I understand that even basic activities such as restoration may be restricted or prohibited.

Here are some concerns:

*Will deed restrictions artificially limit the full use of public property, both now and in the future? I understand that this is the case in other Badger properties now transferred to the Department. Please explain.

*The Department should not make this determination prior to completion of the Master Planning Process, as it may preclude or eliminate desired uses as have been discussed for more than a decade at BOMC.

I would like to urge the Department of Natural Resources to fully adhere to the Values, Criteria, and Plan Elements of the Badger Reuse Plan for the cleanup of the Settling Ponds area so the level of cleanup is consistent with those agreements and the public's use is not restricted.

(William Wenzel, Prairie du Sac, WI)



Comments on the Alternative Feasibility Study for the Settling Ponds at Badger.

As a citizen of Sauk County, I strongly encourage additional cleanup of the residual soil and sediment contamination at Badger settling ponds to allow for unrestricted future. I am in full support the level of clean-up as described by Badger Re-use and CSWAB.

Let's work together to make Sauk Prairie Recreation area a site conducive to conservation, restoration, recreation, and education activities! Thank you for your consideration.

Yours in hopes of clean water, air, and soil--- for me, my children, and their children

(Gretchen La Budde, *Spring Green, WI*)



We are reminding community members to voice their support for the cleanup and restoration of wetlands at the Badger Army Ammunition Plant consistent with the values and criteria of the Badger Reuse Plan. Written comments to the Wisconsin Department of Natural Resources are due by March 11.

The Badger Reuse Plan is a cooperative land use plan for the former Badger Army Ammunition Plant that has been endorsed by the State of Wisconsin, the Ho-Chunk Nation, Sauk County, local municipalities, and non-profit organizations including Citizens for Safe Water Around Badger (CSWAB), the Sauk Prairie Conservation Alliance and Wisconsin Wildlife Federation.

In accordance with the values and criteria written in this plan, the U.S. Army should complete a final cleanup that does not restrict future use and poses no risk to people or the environment, including soil, water, air, and biodiversity. The plan also recommends that wetlands are restored and should include the broadest range of native floral and faunal species.

Your comments on the cleanup of the Settling Ponds at Badger are due on March 11. Only written comments will be accepted and should be sent by letter or email to: Will Myers, Wisconsin Department of Natural Resources, 3911 Fish Hatchery Road, Fitchburg, WI 53711, will.myers@wisconsin.gov

Please take a moment to protect the health and future of our wetlands – your letter will make a difference.

(Laura Olah, Citizens for Safe Water Around Badger, Don Hammes, Wisconsin Wildlife Federation & David Tremble, Sauk Prairie Conservation Alliance)

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I write to strongly urge that the final clean up of the Settling Ponds area at the former Badger Army Ammunition Plant be done in such a way that does **not** restrict future uses or pose any risk to people and the environment. The environment includes soil, water, air and biological diversity. Further, I strongly urge the restoration of the wetlands that formerly occurred in this area of Badger. Such a clean-up is consistent with the values and criteria of the Badger Reuse Plan and supports the plan.

As a reminder, the Wisconsin Department of Natural Resources played a key role in crafting the Reuse Plan, was a supporter of the Plan, and is one of many signatories that endorsed the Plan. Therefore, I require that the WDNR uphold the Reuse Plan in every facet. That includes a full clean-up of the Settling Ponds area and a restoration of the wetlands there. A full clean-up and restoration should include the broadest range of native flora and fauna.

Accepting a lesser clean-up and restoration should NOT be a pretext to abandon by the Badger Reuse Plan and pursue high impact recreation anywhere on the former Badger lands, including the Sauk Prairie Recreation Area or any lands the WDNR hopes to acquire in the future. Neither should a lesser clean-up and restoration be an attempt to pick and choose among the values and criteria of the Badger Reuse Plan that might currently be in vogue at the WDNR and favor high impact uses.

I encourage the Department to carefully revisit the Reuse Plan it produced with the other stakeholders and remind itself that high impact recreation and other high impact uses were considered during the planning process. Those rankings are available in the Plan. The high impact uses ranked poorly and were not endorsed by the Badger Reuse committee, including the WDNR. Now is not the time to back slide on the Department's commitment to the Badger Reuse Plan. Any clean-up of the Settling Ponds area that restricts future uses or poses a risk to people or the environment will be a failure on the part of the Department to honor its commitment to the Badger Reuse Plan, the process that created the plan, and will betray the people who worked with the Department in creating the Plan.

(Michael S. Putnam, Sauk City, WI)

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After viewing the displays and maps at the open house on Feb 20, I came to the realization that there was little or no clear information presented that would inform the public as to the location and kinds of use restrictions that would have to be put in place should the DNR accept the Army's cleanup proposal for the Settling Ponds area of BAAP.

By not clearly laying out this information at an open house designed to generate public comment, the DNR is in effect, by exclusion, denying the public of information it needs to formulate an educated and responsible response.

I urge the DNR to reject any cleanup proposal by the Army that would limit the future owner's ability to use the land in any way it sees fit.

When the DNR accepts ownership of these lands from the Army, it does so on behalf of the people of Wisconsin. I don't believe it would be wise for the DNR to acquire land that its represented constituency cannot use and enjoy because of potential risks and liabilities left behind by the previous owners.

(Frank J. Olah, Merrimac, WI)



I write to strongly urge that the final clean up of the Settling Ponds area at the former Badger Army Ammunition Plant be done in such a way that does **not** restrict future uses or pose any risk to people and the environment. The environment includes soil, water, air and biological diversity. Further, I strongly urge the restoration of the wetlands that formerly occurred in this area of Badger. Such a clean-up is consistent with the values and criteria of the Badger Reuse Plan and supports the plan.

As a reminder, the Wisconsin Department of Natural Resources played a key role in crafting the Reuse Plan, was a supporter of the Plan, and is one of many signatories that endorsed the Plan. Therefore, I require that the WDNR uphold the Reuse Plan in every facet. That includes a full clean-up of the Settling Ponds area and a restoration of the wetlands there. A full clean-up and restoration should include the broadest range of native flora and fauna.

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I encourage the Department to carefully revisit the Reuse Plan it produced with the other stakeholders and remind itself that high impact recreation and other high impact uses were considered during the planning process. Those rankings are available in the Plan. The high impact uses ranked poorly and were not endorsed by the Badger Reuse committee, including the WDNR. Now is not the time to back slide on the Department's commitment to the Badger Reuse Plan. Any clean-up of the Settling Ponds area that restricts future uses or poses a risk to people or the environment will be a failure on the part of the Department to honor its commitment to the Badger Reuse Plan, the process that created the plan, and will betray the people who worked with the Department in creating the Plan.

(Mari Larsen, Unstated)

Appendix 2

Letter addressed to Will Myers (WDNR) from selected Restoration Advisory Board Members, CSWAB, March 8, 2013

2008 Ecological Risk Assessment Reference Areas Soils Sampling Locations, CSWAB, 2008

CSWAB Action Alert, Badger Soil Cleanup May Not Be Protective, CSWAB, February 2013

Preliminary Public Comments and Questions, CSWAB, November 7, 2012

Comments on the Ecological Risk Assessment No. 39-EJ-1410-96: Settling Ponds and Rocket Paste Area, Badger Army Ammunition Plant, Baraboo, WI, Environmental Stewardship Concepts, January 27, 2005

ESC, LLC Comments on the "Alternative Feasibility Study: Final Creek, Settling Ponds, and Spoils Disposal Areas, Badger Army Ammunition Plant", Environmental Stewardship Concepts, January 14, 2013

Settling Ponds Fact Sheet, Environmental Stewardship Concepts, February 2013

Comments Draft Revised Remediation Goals for the Alternative Feasibility Study Final Creek, Settling Ponds and Spoils Disposal Areas Badger Army Ammunition Plant, Environmental Stewardship Concepts, February 4, 2010

Letter addressed to Mark Aquino (WDNR) from CSWAB, CSWAB, March 16, 2013

Breakdown products of 2,4- and 2,6-Dinitrotoluene, Environmental Stewardship Concepts, June 29, 2009

Review of "Dinitrotoluene in Deer Tissues, Final Report", Environmental Stewardship Concepts, March 18, 2009

Comments on WDOPH Interim Drinking Water Health Advisories for Nitrobenzene, *m*-Nitrotoluene, *o*-Nitrotoluene, *p*-Nitrotoluene, and 2-Amino-4,6-Dinitrotoluene, Environmental Stewardship Concepts, April 3, 2008

Comments on Baseline Ecological Risk Assessment Settling Ponds and Spoils Disposal Areas Site Badger Army Ammunition Plant, Environmental Stewardship Concepts, August 7, 2008

Settling Ponds Petition, CSWAB, March 2013

Letter addressed to Mark Davis (WDNR) from CSWAB, CSWAB, June 20, 2012