



NEW JERSEY HIGHLANDS COALITION

508 Main Street
Boonton, NJ 07005
(973) 588-7190

Mr. Peter Rowland
Picatinny Public Affairs Office RDAR-CPA
Picatinny Arsenal, NJ 07806-5000

February 17, 2012

Re: Draft Environmental Assessment and Finding of No Significant Impact (dEA/FNSI) for Building and Operating a Safe Armaments Facility for Energetics Research (SAFER) at Picatinny Arsenal (PICA), New Jersey

Dear Mr. Rowland,

Please accept these comments on behalf of the 67 member organizations of the New Jersey Highlands Coalition and in conjunction with Dr. Emile DeVito, Director of Science, New Jersey Conservation Foundation. Thank you for the opportunity to comment on the SAFER proposed action. Our comments are considerable in volume, scope and substance, on both the dEA/FNSI and on compliance to federal NEPA standards. In summarizing our review of all aspects of the publicly available documentation, we are forced to conclude that the published dEA/FNSI was written without expectation of any public review, that it was posted as a mere placeholder to meet *pro forma* compliance with federal NEPA standards.

From the few facts we are able to draw from the available project documentation, it is clear that the project team intends to move forward with a *de minimis* inventory of the resources that may be impacted, which precludes a credible analysis of the extent of impacts, any requirement to avoid impacts or any need to propose meaningful mitigation measures. In fact, the only aspects of the project that appear fully understood by the project team are the mission, the location and how the project will commence. The extent that the dEA/FNSI is deficient in assessing the impacts of construction and operation of an underground explosives testing chamber is huge. The project location is in a critical New Jersey water supply area; it has documented habitat for New Jersey-listed threatened and endangered species; it encompasses high value wetlands and steep slopes.

If the SAFER project is to:

- comply with Department of Defense standards;
- comply with the President's Council on Environmental Quality (CEQ) standards for compliance with the National Environmental Policy Act (NEPA);
- comply with New Jersey Department of Environmental Protection (NJDEP) regulations concerning Freshwater Wetlands and Flood Hazard Areas;
- be guided by the standards of the NJDEP Endangered and Nongame Species Program, regulations *then*;

PICA *must* refrain from pursuing this project until all deficiencies are adequately addressed and resolved. Further, given the scope and the potential impacts of the project a full Environmental Impact Statement is clearly required. In addition, we hereby request a public hearing if PICA seeks to reestablish

the public confidence that was clearly undermined by the demonstration of its procedures and public processes with respect to this dEA/FNSI.

A perfect model for the partnering of meaningful public participation and the accomplishment of garrison objectives through a faithful implementation of NEPA has many precedents. We would like to call your attention to a recently prepared Draft Environmental Assessment at US Army Garrison Fort Carson, CO as one you might consider as you move forward. This dEA may be accessed at <http://aec.army.mil/usaec/nepa/carson-cab-draft-ea.pdf>.

Throughout these comments Picatinny Arsenal is abbreviated as PICA. Documents referred to in these comments are those provided by PICA at my request and are source material referenced in the dEA/FNSI. They are abbreviated as follows: CPI 2009a (EETC); Booz Allen 2011 (ESC); RBA 2011 (WET); CPI Proposed Construction Timeline (SCHED); CPI 2010 Rock Stability Report (RSR). Use of quotations nearly always refers to text from these. References to the Code of Federal Regulations (CFR) are from the section title pertaining to the Council on Environmental Quality (CEQ) implementation of the National Environmental Policy Act (NEPA), CFR 40, and the title and section pertaining to Army regulations, CFR 32 section 651.

NEPA Process Comments

NEPA requires specific elements for applicable actions under federal jurisdiction and specifically in the determination of when to prepare an Environmental Assessment (40 CFR 1501.4). Deficiencies noted here include:

1. Lack of diligent efforts to promote public involvement during the development of the dEA/FNSI:

Although PICA had provided a 30-day public review —and extended by an additional 7-days at our request; there is no other record of involvement of, or outreach to members of the public or NGOs, in making a determination of public interest. On February 3, 2012, within the tolling of the public review period, I spoke with both the Township Engineering Department and Township Clerk of the adjacent municipality, Rockaway Township. They had not received any notice of the dFNSI, nor had they any knowledge of the proposed project (although the Township had received notification by PICA of the immediately preceding draft EA for the Building Demolition Project). For a project of this complexity and because of the well known public-trust resource values that are known features of the general location, CEQ and Army guidance indicate that maximum public involvement is needed to steer and support the process effectively.

For a project that has apparently been under consideration and development for over three years, there is lack of proactive discussions involving the public or any effort at transparency (CEQ 1500.1 (b)).

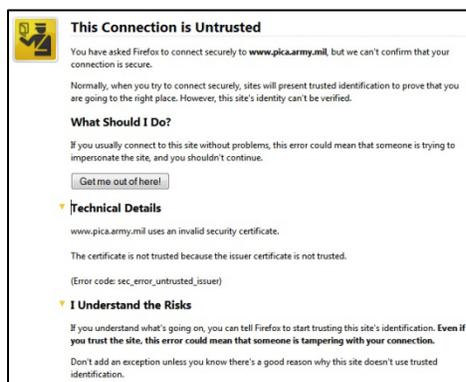
2. Minimal cooperation with environmental agencies (40 CFR 1501.4(b)):

Section 1-3 of the draft EA lists the efforts made at coordination with local, state and federal agencies in “obtaining information and feedback pertaining to the construction, operation and maintenance of the SAFER on Picatinny Arsenal.” Besides PICA, only three offices of NJDEP are mentioned. No municipal or county level offices or interested NGOs at any level of regional interest are listed. In an email message to Mr. Rowland dated February 1, 2012, I requested the names of the agency personnel who were invited to review the draft EA. I have not received any response.

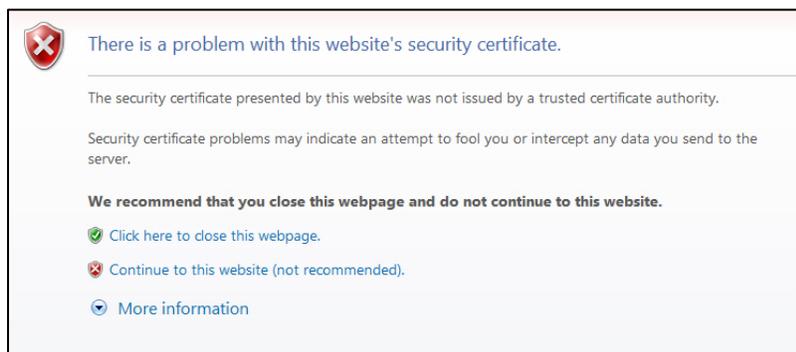
3. Substandard usage of available for computer technologies to disseminate information to public stakeholders widely and to maximum extent per Army rules:

The only contact information in the dEA/FNSI, to request additional information or to file comments was a post office mailing address for Mr. Rowland at his PICA office. There was no telephone number listed or email address provided. It required considerable research on my part, and many telephone calls, to eventually find a valid telephone number for Mr. Rowland as PICA does not have a discernible telephone directory, either web-based or through a central office operator. This considerable research was necessary merely to ask if digital submission of comments were acceptable. I expect that only the most determined individuals would have gone the distance required to get this information.

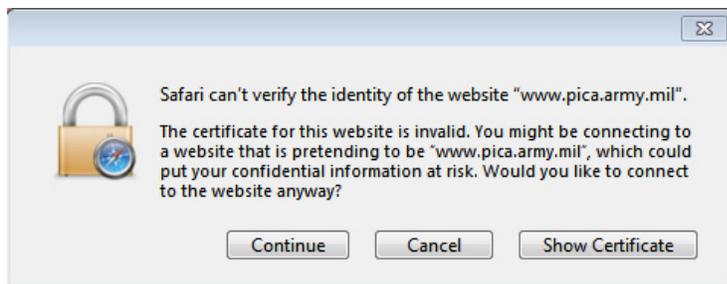
What I found particularly troubling in these daunting quests for basic information was how pervasively the door was shut on public scrutiny of the dEA/FNSI. For example, the only public access to the dEA/FNSI is by navigation to the Environmental Affairs section of the PICA website. Once there, the first time visitor using the Firefox browser is greeted with this message:



Internet Explorer users are greeted with:



And Safari users see:



The brave viewer who marshals on may eventually come to the page “NEPA DOCUMENTS AT PICATINNY ARSENAL”, where a link to the subject dEA/FNSI may be found. Here, a summary of the dEA/FNSI status is provided, which states,

“...With the implementation of specified mitigation measures, the EA **has resulted in a finding of no significant impact** (FNSI) for the proposed action.”

The emphasis above is mine; to point out that an interested member of the public could be misled to believe that PICA has come to a final conclusion about this project. No information or reference is provided at this stage indicating the start, end, or duration of a public comment period.

4. Lack of transparency and accountability regarding this proposed project and environmental management for this dFNSI (40 CFR 1507.2).

Projects developed under NEPA standards require assigned personnel and resources to manage NEPA processes as a component of project development. No NEPA responsibility is specified for the project. There is no list of persons assigned to manage the environmental aspect of the projects or consultants with the expertise or credentials to indicate with any confidence that resources at risk could be identified, adverse impacts would be assessed and avoided where possible, and that where necessary, proper mitigation would be provided. The only individual identified with the project is Mr. Peter Rowland, a Public Affairs officer, and only a post office address provided as the sole point of contact.

The draft FNSI (p.7) concludes that “the **respective decision makers have determined that**, with the implementation of specified mitigation measures, building and operating the SAFER would have no significant effects on human health or the natural environment, and would have no significant cumulative effects on human health or the natural environment.”

It is entirely without merit to claim that any determination can be reached if “the respective decision makers” have not been identified, or to what reference they are “respective”.

5. Failure to see the gravity or importance of this unique action in its environmental context (40 CFR 1505.3 and 1501.4(e)(2)):

PICA is the largest tract of public land in the New Jersey Highlands region. Two state-designated Natural Heritage Priorities Sites (NHPS) abut one another along the spine of Copperas Mountain. To the east is Lake Denmark NHPS and paralleling it to the west is Green Pond Mountain NHPS. The project proposes the construction of new roads, forest clearing, blasting, storage sites for quarried rock, deep excavations into a mountainous terrain in close proximity of groundwater tables, wetlands and stream buffers, and diverse plant communities, riparian corridors and known habitat for threatened and endangered species.

WET references NJDEP Endangered and Nongame Species Program opinion that these NHP sites represent “some of the state’s best habitats for rare and endangered species and ecological communities”.

Although the Lake Denmark site is noted in the EA, the Green Pond Mountain site is not—even though it encompasses all of the gorge area which will be the most affected riparian corridor during the construction and future operations phases.

CEQ 1505.3 & Fed. Reg. vol. 76, No 14 (Jan. 11, 2011) points out the criteria for assessing importance, which includes protected resources, public interest, intensity (of action), human health or safety, legal requirements, permits, or regulations that maybe pertinent.

6. Lack of accurate and clearly presented Environmental Information (40 CFR 1506.5).

Disconnected or inaccurate information are found in the Erosion and Sediment Control and Stormwater Evaluation (ESC) reference document. 25th Avenue is referred as a location on Figure 2, but is nonexistent, as is Copperas End road referred to in Figure 5; There are three different locations for 4th Avenue on the Figure 5.

7. Over-reliance on contract consultants for preparation of EA.

CEQ 1506.5 holds the lead agency responsible for any information that may be prepared by delegation to others. There are no specific credentials listed that qualify the “expert” title given to the consulting EA preparers.

With whom did PICA contract for the various studies listed on page 2-10 of the EA? Did any of these contractors help prepare the EA or FNSI? Will they be involved in any monitoring efforts?

8. Lack of clearly identified and assessed mitigation measures (32 CFR 651.15(b)).

This is one of the most problematic aspects playing this dEA/FNSI. All mitigation measures are only vaguely described or explained. Many are yet to be determined. If they are vague or TBD, then they cannot and have not been assessed as to their efficacy in reducing significant impacts. This is a fatal flaw.

Example include-

ESC on Pp 8-9: “measures (from sections 4 & 5 of this report)” have yet to be selected or even “proposed” and are not discussed in the EA.

ESC p 16: “...additional measures will ensure sediment laden water” will not enter Green Pond Brook. The additional measures are never specified.

WET p 15, IX; it is indicated that minimization measures and compensatory mitigation are part of the pending permit; yet they are not mentioned in the EA tables of “proposed mitigations”.

Even if they were, according to the authority the draft EA in Section 5 confers, the PICA decision maker is required only to consider the proposed mitigation, and to commit only to those decided for adoption in the signed final FNSI.

Mitigation, proposed in subdocuments are overlooked in the draft EA, and even though the EA states that “mitigation measures must be adopted to mitigate potentially severe or significant environmental

consequences”, actual adoption of any proposed mitigation that surfaced in the EA is entirely at the discretion of the decision maker.

9. Lack of definite mitigation commitments and/or sufficient funding (32 CFR 651.15(c)(d)).

CEQ guidance and CFR 32 651.35(g) make it clear that mitigation identified must be implemented, and are binding on the agency. However, if funding is not sufficient or lacking, or manpower is not available, then mitigation is not required

The d-EA/FNSI and other documents do not indicate, either qualitatively or quantitatively the costs for proposed mitigation measures, nor are the costs of the feasibility studies, permits, or construction assigned. If funding limitations constrain the ability to carry out the required mitigation, budgets must be applied across all actions. The scope of the projects must be limited in proportion to the cost of mitigation. Proposed activities may not be allowed to deplete the budgets required to mitigate.

In CEQ guidance Best Management Practices (BMPs) are seen as mitigation measures especially when incorporated into project designs; however this EA indicates that “BMPs are not required”, even though they might reduce impacts.

It is unclear if a permitting agency specifies a BMP as a condition of their permit, it can be by PICA as an ultimately optional measur

10. Lack of mitigation monitoring and enforcement program (or plans) to support the dFNSI (40 CFR 1505.2 (c); 32 CFR 651.15(i)(1)).

40 CFR 1505.2 (C.) Emphasizes that there must be explicit commitments to both the mitigation measures, as well as carefully detailed monitoring, quality assurance, and evaluations of the mitigation measures. The mitigation must be measurable as to the effectiveness for reducing significant impacts. The dEA/FNSI fails to incorporate monitoring plans, quality metrics, and enforcement mechanisms.

A monitoring protocol depends upon the collection of baseline data before project implementation and mitigations commence. The dEA/FNSI identifies resources for which baseline data is currently lacking, with no subsequent plan to address. Monitoring is a requirement if proposed is to succeed. Without addressing the absence of baseline conditions, mitigation fails here.

In fact, monitoring plans for each of the “proposed mitigations” is wholly missing in this dEA/FNSI.

Mitigation monitoring is required and is to be discussed in an EA whenever there are controversial proposals, adverse impacts to Federal or state protected resources, or statutory permitting requirements. In this SAFER project, all these factors are in play, but the EA inadequately addresses how even the “proposed” mitigations will sustain the environment or prevent significant impacts

The dEA/FNSI and reveal substantially inadequate documentation and it does not meet CEQ (40 CFR) or most Army (32 CFR) NEPA standards for sufficiency. It should be rescinded due to the many faulty assumptions, weak analyses, and ineffective mitigation.

Project Specific Technical Comments

WET p 45, submitted one year ago, indicates that decisions are still pending regarding transition zone width, wetlands habitat value rating; and verification of delineation. How can a FNSI be supported with

wetlands parameters unknown? This is simply one example of many as yet unanswered questions or requirements.

Purpose and Need 1.0

Although there is a standard format for EAs and it is used by the preparers, this overall presentation is not well organized, not coherent in many places, and seems disjointed. Any semblance of a clear progression of a narrative outline of the actions, events, issues, impacts, and mitigations is quickly lost. Most graphics are poor in content and illegible due to scale of reproduction or resolution. Overall, it does not communicate effectively or easily.

Description of Proposed Action and Alternatives 2.0

SAFER Construction

The section covering this complex project is underwhelming in its brevity, yet the actual vision appears in fits and spurts throughout the EA and in many reference documents. The presentation of this key action is inadequate since it is not comprehensive. This EA is like a jigsaw puzzle rather than a coherent rendering – bits and pieces here and there; and often not fitting.

The primary objective is to contain fragments during (experimental) test detonations in some sort of enclosed space or structure. A few options are described and a preferred alternative is selected (i.e. SAFER cave – chamber). Although that is the primary construction objective and it is outlined in this section, many other construction actions are not also included in this logical section. Examples are: ancillary structures, stabilized construction entrance, water supply, control building, bench ramp, staging area ramp, parking, runoff diversion ditches, berms, infiltration wells, pervious pavements, or channels in road beds? These are all still sporadically introduced or mentioned in diverse sections or references and not fully described, therefore their locations and impacts cannot be ascertained, nor their impacts.

Many impacts of SAFER construction are inadequately identified, described, or assessed. Examples from ESC follow: The “electric cable and roadway designs are not completed”; Swales “outside the footprint of the existing roadway” are not mentioned in the EA. This also raises questions about cumulative effects analyses. What are “other considerations” mentioned page 12, section 3.4? And from EETC examples: How well will a concrete floor, of unspecified thickness, poured over a geo-membrane, laid on top of moist bedrock, withstand repeated forces of 5lb. fragments pelting it at velocities of 5000 feet per second? The puncture or tensile strength of geo-membranes (geo-liner in EA) are not specified.

Treated elsewhere in the EA or reference documents, as if they are independent of construction, are: various roads or ramps development or improvements (including paving); and the large rocks storage areas and their actual site designs (significant); all preliminary site preparation activities such as tree clearing (or grubbing). The relationships of these construction activities to various permits are not well connected in the EA.

Also under estimated or described is the significant size and shape of the “large pit sculpted into existing rock” through “significant excavation” at the “portals” or “staging area”! This key construction feature alters the external land formations such that a deep, nearly four-sided pit will be big enough to fit about three Burger King stores on top of one another; and it’s access road would be like the tall sound barrier walls lining route 80 the length of two football fields!

There are many elements related to the SAFER engineering or mining design that are missing or incomplete, or contradictory which prevents a full appreciation of which impacts may occur, especially underground. Here are some examples. In the requested EECT there are no drawings provided which had accompanied the original report? Also the construction timeline in this report is not provided. The EA suggests at least one tunnel is “driven level”, yet drawings (that are provided) and the RSR suggest this is not true. The incline or slope, as well as its direction (into or out of) the mountain is confusing between and within the documents. This has implications for contamination laden drainage either way, but which way is the question for assessing impacts.

The ESC says that the SAFER chamber will have concrete walls, floor, and ceiling, yet the EA says only a concrete floor.

There are no projected start/completion dates indicated for the overall project, for the many component steps or phases for feasibility studies, planning, permit application and coordination, not to mention construction. The only time line provided (per special request) only addresses the physical construction schedule and it is six months in duration. The EA repeatedly indicates only six months. It seems evident that this project will span more than six months, perhaps up to a couple of years; however this is not formulated with any sort of charts or timetables. A FNSI needs to explicitly confirm an outline all relevant actions, especially those dependent upon specific mitigation measures and their concurrent monitoring plans. This EA is very deficient in this regard.

Just as critical time lines are very important, if mitigation measures based on seasonal avoidances (of wildlife or behaviors) might be employed, so too are locations of these many construction features or construction activities crucial. No locations are indicated for control building, parking for dozens of vehicles and equipment on site, etc. From the WET it is unclear where the 0.04 acre “disturbed transition area not been impacted” is located “in the vicinity of project area” which is supposedly going to be planted with four types of plants?

FCTS compared to SAFER

One of the listed alternatives is deserving of a relook and more in-depth scrutiny; the Fragment Containment Test Stand (FCTS). A review of PICA EAs shows that this was not only a viable, but the preferred alternative, solution to the dilemma of enclosed detonation testing in April, 2010 – almost two years ago. It was preferred for a variety of positive reasons. It had no direct or lasting negative impacts, especially no impact on flood plains, infrastructure, or Threatened or Endangered species. In fact this assessment revealed it had long term positive impacts on natural resources, noise, safety, and water resources, and hazardous materials.

It was favorably located at a range (616) which had year round access, space, electricity, no impacts to surface water and no impacts to wetlands or riparian areas. In that same siting Table 2, the matrix revealed that range 1222 (gorge), which is the selected site for SAFER chamber, did not have year round access, due to unimproved roads, and could impact surface waters (Green Pond Brook); as well as wetlands and riparian areas. Of five possible ranges in which to locate the FCTS, the gorge was least desirable for three out of five criteria. As it is apparent now, the location of SAFER also is beyond the reach of the improved roadway and electrical supply at range 1222.

It is contradictory to now imply (on page 2 -3) that range 1222 and beyond is accessible all year round. The constraints identified in 2010 at this location are apparently the same today. Overcoming these previously identified limitations will now require more money, more construction, and more mitigations than at any other location.

Why wasn't the approved FCTS ever built as originally proposed? If it was too small as now claimed, it could have been enlarged.

The main drawback now claimed, unlike in 2010, is that it is not durable enough to sustain repeated detonations. This is a structure made of 4 foot thick reinforced concrete and armored with 4 inch thick steel plates. If it degrades too rapidly, how is natural rock and a poured concrete floor going to withstand the forces and fragments as large as 13lbs. striking it at 4300 feet per second? The floor which may crack and degraded like the FCTS will be less than 20 feet from the valley floor water table and aquifer. Groundwater contamination is a grave threat at this site, unlike for the former FCTS.

Per RSR, the RMR of 84 suggests only a "stand up time" of ten years; yet cave integrity is supposed to be "multi-decades". There is no discussion of chamber lifespan with roof supports, or when subjected to repeated test blast forces?

This ought to be the focus of renewed NEPA analysis and may preclude an EIS for SAFER if the FCTS can be enlarged with improved durability.

Surface Mined compared to SAFER Chamber

In January 2009 a proposal (option 2) was presented for a chamber dug into side of a mountain with a flat steel roof, then earth covered, with hanging blast doors on the front side. This would not be dug downward, nor deeply; it would essentially be a rock shelter with steel blast doors closing the open side. This cost half as much as the underground option (SAFER); and could be built in the same location. This option 2 met all the same criteria as the underground one. Why was it rejected?

Restoration

In RSR it warns to avoid a "structural complication" in the bedding geology near the SAFER chamber site. How and when will it be known if this "complicated" bedding will be avoided? What happens if it is intersected while tunnel or chamber excavation is underway? Is there a work around alternative; or will it be like putting a picture hanging nail through the sheet rock wall rather than into a stud? If a new tunnel is made where will the extra rock debris be stored? Such scenarios are not addressed with contingency plans in the EA. If the rock structure is too "complicated" or simply insufficient for this project there is no restoration plan identified to remediate the site.

Similar to the above anticipated rest during excavation, another scenario is indicated that defies logic. In the same RSR it states that "multi – decade stability" and "minor maintenance requirements" (both being functional operating criteria) will be determined after the chamber is built. Again, this begs the question regarding abandonment and slash for site restoration if one or both criteria are not met. Restoration scenarios need to be part of the alternatives analyses and as mitigation measures. Although PICA is renowned for its experimental expertise with explosives, it should not presume to experiment boldly with the environment.

Multiple Feasibility Studies

The entire paragraph on page 2-10 of the EA is illogical. In this one paragraph it presents two contradictory statements about feasibility studies: they are "intrusive and may have adverse impacts", yet later they are, "far less impactful". Although they are not assessed as to their impacts (presuming someone knows what they would entail on the ground – to include possible significant adverse effects) they cannot be conducted until a FNSI is signed - this is flawed reasoning. Just how intrusive are the

feasibility studies? This is simply an attempt to conduct multiple intrusions in the environment with unknown severity yet expected adverse impacts without NEPA evaluation, before implementing the actual (construction) project which is believed or pre-programmed to be a FNSI.

Under NEPA, all effects and their impacts must be examined, and all mitigations to reduce significance of impact must be identified and assessed, committed to and funded by the action agency in order to render a FNSI.

There are at least four so-called feasibility studies: rocks stress, groundwater, rock storage site characterization, and ANFO contamination potential. Considering them either individually or collectively their impacts are not described nor any BMPs or mitigations prescribed which is faulty enough; however if the overall project must be abandoned due to results confirming unfeasibility, there is still no restoration or remediation discussed.

Confounding this deficiency further is the fact that the timing of these feasibility studies implies that they will commence during or after site clearing and construction activities (i.e. project implementation). An EA/FNSI project may not commence unless all mitigations (and monitoring mechanisms) are in place and implemented with project progression, yet many mitigations are to be determined by or after these intrusive and adverse, but less impactful studies are performed.

One example of conflicting statements regarding feasibility studies from RSR and the EA: If rock stress feasibility will occur inside the completed chamber, why is it then stated it will be done “prior to excavation and construction”?

Multiple Plans

From the EA there are: groundwater monitoring plan, surface water quality, rock storage ANFO mitigation, safety plan, wetland (transition area), dewatering, and environmental affairs SAFER project monitoring plan. From the ESC there are: ESC plan, storm water pollution prevention plan, and groundwater protection program plan.

Since nearly all these plans are yet to be determined, how and where are any BMPS or mitigation measures within these plans identified. These several plans must be the developed and coordinated with multiple agencies or PICA organizations and listed in this EA to sustain a FNSI.

The dEA/FNSI fails to plan for any monitoring and enforcement.

Multiple Permits

Identified permits within the EA and other references are: storm water general, discharge to groundwater, wetland transition area waiver(for SAFER site), another transition area waiver (for Gorge road), flood hazard control in riparian area.

Permits as yet unspecified are likely to be needed for; stream encroachment, stabilized construction entrance, and sediment basins.

The documents do not indicate if any of these are issued or even applied for, except for one wetlands transition area waiver. Have any of these other permit applications been submitted and have any been issued? Who within PICA is responsible for assuring they are received and followed, especially if granted to a contractor?

Multiple Contractors

Contractors are identified yet presumably many are sub-contractors to a primary contractor. If so, this should be made clear in the text. These are the contractors mentioned: construction, dewatering, mining, blasting, certified ANFO transporter, certified geologist and hydrologist.

Responsibilities for developing mitigation measures, obtaining state permits, or developing plans is alternating between the construction and dewatering contractors.

Have any of these contracts been awarded? Have any of the contractors helped prepare this EA?

Is the construction and dewatering contractor one and the same? Is the mining and blasting contractor one and the same?

Coordination

If the presentation of the disparate and mostly hidden references to the multiplicity of required plans and permits is any indication, then the implementation, and monitoring and enforcement is likely to be even more deficient or absent. The lack of coordination suggests dysfunction will occur on many fronts and at many levels. This does not reassure public confidence in the protection of the environment.

C. Affected Environment and Consequences 3.0

Although the physical SAFER facility, rock storage areas, and gorge roads corridors may only comprise about 20 acres, the impacts in this sensitive landscape can easily affect a few hundred times as many acres in this Copperas Ridge and Green Pond terrain. To address the wider implications or consequences of concern of the New Jersey Highlands Coalition, I will focus on four topics or resource areas.

Rock Storage Areas

PICA's use of rock as "infill" is unclear. What exactly is going to happen in five years – and where are the locations? This should be a consideration of cumulative effects analysis, but it is not a consideration at all.

Another missing construction detail is the "specific design of the rock piles" and more importantly, will they increase storm water runoff and/or contribute to groundwater contamination from ANFO residue?

What are the road building needs and the affected resources between the SAFER site and the rock storage areas,?

Per the ESC how much truckloads of "rip rap" will be needed around each rock storage area? Where will it come from – ANFO contaminated rock? When will any of these massive and hugely weight bearing trucks travel up the gorge roads?

Ground Water Contamination

In the former EA for the FCTS, a noted concern with the previously considered alternative was that munitions contaminants might get onto or into the ground outside that structure – which was located in an upland setting. This chamber will be in the mountain, below the mountain and very close to the

water table (10 - 15 feet above the saturated ground water aquifer). This has significant potential to pollute groundwater so crucial in the Highlands region!

Per EETC, if the floors of the access entries and chamber provide “passive drainage to the outside”, what sort of contaminants will be leaking from this facility and in what quantities?

There is mention of using infiltration wells or rinsing of rock debris as mitigation for ANFO residue; however these mitigation measures are not explicitly described or discussed, nor are they actually listed as “proposed” mitigations.

What sort of munitions will be disposed of inside the chamber? The EA states the chambers will be used for testing, but the WET anticipates disposal also.

P 91 of WET states references a description of actions and effects that are not discussed in the EA, and which seem important. For instance, the big “decrease in surface run off” with corresponding “increase in groundwater recharge” near the pit area is not explained in the EA. If a lot of water is going to run off and collect in the highly “fractured and extremely permeable” strata near the SAFER entrance, runoff could infiltrate into or beneath the tunnels and leak into or around the chamber.

Wetlands / Green Pond Brook (Surface Waters)

In the EA it is not clear which wetlands are being impacted or how.

In the WET the focus of this massive document seems to be on a 0.04 acre wetland and an unnamed tributary. There is no indication these water features are not very close to the SAFER entrance area. No effort is made to prevent trucks or machines from traveling over or parking on this small wetland.

Apparently NJDEP is considering downgrading this wetland to an intermediate resource value because it is small, but it may nonetheless contribute to surrounding wetlands of exceptional resource value and provide seasonal breeding habitat for local amphibians.

There appears to be no decision as to whether or not the road up the mountain which passes this small wetland will be paved or not. That should be addressed in this pending or some future permit –but at present it seems uncertain; therefore mitigation measures should be identified for this possible impact.

The “increased groundwater recharge” effect at the pit area may cause a downhill effect at “the spring” near Green Pond Brook, causing it to gush or flow more forcefully which could alter that micro habitat.

In the ESC Pp 9 & 10, BMPs are repeatedly considered sufficient for all storm water and erosion and sediment control issues for this project; yet “BMPs may not be required” at PICA. The wetlands or Green Pond Brook could be put at risk.

There is no indication that a Flood Hazard Area permit been applied for regarding this project, although the paving in the riparian zones next to Green Pond Brook would require it.

Permitting may be required if a sediment basin is to be constructed in or next to Green Pond Brook. And presumably, more trees will have to be cut down.

Lastly, it appears that a stabilized construction entrance will be established well south of the SAFER site and very close to the edge of Green Pond Brook. No provisions for or any permit requirements have been identified to prevent (tire) pressure washing rinse water from running into the nearby brook which

is trout production waters. Rainfall can similarly move concentrated fines from this location into the brook.

Threatened and Endangered Species

Per table 3.8.1.3 in the EA there are at least eight state Threatened or Endangered species in this project area, however the same section only discusses one in any detail – timber rattlesnake; and barely mentions another – bobcat. The other six lack discussion or consideration of possible impacts to them. Wood turtle is listed in this vicinity yet not discussed.

Per WET the eastern small foot bat is identified as one of the many species within the highest ranking habitat rating 5 of the N J Landscape Project Mapping; yet it is not discussed in the EA. This is a Federal candidate species that could become endangered.

Small Foot Bats might use the rock pile areas for roosting, as well as rodents and possibly woodrats, if any are in this vicinity. These species need to be considered. No indication is given if USFWS approved any other impacts, besides tree clearing, that may affect the already endangered bat. One cannot mitigate for a loss of a federal listed species. An incidental take statement should be here.

OSHA requires fences around the 2 acre site but it's only a guess if it is to keep snakes out. In the ESC many runoff diversion ditches or berms are planned, but their locations are not indicated. These may block the movements of reptiles over the ground. It is not specified if considerations or provisions for wildlife will be made by the natural resource biologist, a consultant, or the persons issuing an ESC permit or SPP plan. There are no decisions about roadway construction or rock pile designs and no permits have been prepared. Any specific details for the placement or layout of silt fences, much less "passage points" is not possible unless so specified; thus monitoring plans cannot even be drafted.

The region of influence (ROI) for wildlife and T & E species or species of concern extend to nearby adjacent surrounding areas through natural movement corridors or pathways and connected habitats. The limitation listed in the Table 3.0 –1 is arbitrary and shortsighted.

Time parameters for the "significant noise levels" from blasting events are not specified.

No indication as to who at "PICA and at NJDFW are conducting rattlesnake surveys".

The idea that snakes will slither away due to noise is unfounded – snakes cannot hear, nor do they respond like most mammals. Snakes tend to freeze when vibrations or odors are uncertain to them. This assertion is baseless. As snakes are present in the construction areas, activities and noise are not likely to spook them as they would mammals. The risk of being run over seems high if they are close by the access roads or rock pile areas. No mitigation is indicated to prevent road or rock pile kills. No one is given the responsibility of "training drivers to identify a specific wildlife species". Copperheads are notoriously confused with water snakes among others. The only prudent approach is to stop when a reptile or amphibian is on the road and wait for it to safely move away; however rare and endangered species should be identified and documented by reliable witnesses so state sighting reports can be properly filed. This does not appear to be a practical approach to this wildlife concern or impact.

Procedures to protect or move a snake must be provided.

The 7 acres deforestation trees is not addressed. Precisely how the cleared land will be used is unclear, and whether or not this is the maximum needed for all road widening, road improvements, staging areas and new roads.

In Appendix D of the EA, the letter implies that 7 acres of trees may be bulldozed rather than cut down. No specifics are provided as to the necessity of the method, or how the tree scrap will be disposed. If burned, it is unclear if air quality permits will be required. If waste wood is generated, a plan should be made to recycle rather than disposed, or abandoned on site.

The EA mentions grubbing only one time, yet the SCHED lists 8-12 days.

D. Cumulative Impacts 4.0 and Conclusion 5.0

Many direct and indirect effects and their impact have not been adequately or credibly addressed in the EA or other supporting documents. Also, the sparse assertions regarding cumulative effects lack credibility. P 28, section 6 of the ESC sums up the problem throughout this EA and its processes. If these are mere “recommendations” and “only at a conceptual level”, and do not reflect any specific state or county permit conditions or requirements which have not yet been formulated or issued, impacts cannot be assessed, much less can a FNSI be justified.

This EA and its supporting documents seem to be sufficient as an initial framework or outline for a more thoughtful and amplified EIS, but it is not a FNSI by any standard.

Focused Questions

Before closing out this long section of inadequacies these on the technical aspects of the EA and supporting documents, we have compiled a list of some of the many questions raised during this exhaustive review. These questions exemplify and highlight the confusing or contradictory nature of the analyses and/or presentation. These are listed by each document with pertinent page references.

A. (SCHED)

Rock stress feasibility (testing) study inside finished chamber is not depicted or scheduled on this timeline - why? Testing the roof stability is mentioned in another CPI document.

Why in month 6 will a “control building be installed” when on page 3-69 in the EA it states there is an “existing control building outside the immediate area”?

This letter implies that 7 acres of trees may be bulldozed rather than cut down. Is this true?

Why is there no mention of hauling on this chart– is it done during the drilling and blasting activity?

B. (EETC)

Are both tunnels access entries? P 4, Sec 2.2

If the left tunnel is at the top of the ceiling which is 50 feet high, how is this an “alternate exit for safety concerns”? P 5, Sec 2.6

Will this project attempt to “compress the (task) schedule” by working “24/7” (i.e. day and night around the clock every day)? Pp 8-9, Sec 6.1

The last sentence is very confusing! You must build the entire chamber and tunnels to determine if the “rock response” will be sufficient for “bolting, strapping, and steel erection” P 9, Sec 6.2.3

Based on the previous statement in Section 6.2.3, how is it determined that “construction of the underground chamber APPEARS to be feasible”- when all the details or rock responses cannot be known until it is built? This does not make sense. P 10, Sec 7.1

C. (RSR)

If 50 feet, or is it 35 feet of rock, is necessary above the chamber, why is there only 30 feet according to the EA? P 5, Sec 3.2A

If access tunnels, especially the one to floor of chamber, should be no more than a 10% grade, why are the drawings depicting a 16% grade (26’/160’ Fig 7 cross-section A)?

P 5, Sec 3.2B- are these the right set of drawings, or are there different ones (not provided) in the EECT report? These are fairly legible, why aren’t they in the EA, unless they are not the right set?

This walled in road-ramp will collect runoff from two steeply sided ridges. What is the capacity of the sump that is depicted? P 5, Sec 3.3

Did any PICA (or federal government) Certified Professional Geologist, or P.E. scrutinize these data supplied by a contractor for quality assurance or accuracy? If so, do they work in Picatinny or other federal agency, like Corps Engineers? APP B, D, & E

D. (WET)

Why was this (1200 area) site chosen for its “accessibility”, when it was rejected in 2010 for its difficult accessibility (for siting the FCTS)? (see Table 2 for FCTS EA) (also EA Pp 2,3) “The facility location must be accessible year-round to personnel in...” P 13, IV & V

Why wasn’t “containment of fragments” a “very pertinent safety concern” for past several decades? P 13, IV & V

Minimization measures: A final amendment to the plan to further reduce wetland impacts “utilizing a generator as power supply for this facility” will “prevent the need to install an electric utility line through additional transition area”. The EA indicates that an electric line will be installed the remaining length of Upper Gorge Rd and up to SAFER site – explain this contradictory information? P 15, VIII Does NJDEP wetland Permit staff know that there seems to be a change?

How many transition zones (of wetlands A, B, C, D, E, and the small CP) might be impacted if an electric line is installed? P 15, VIII

If minimization measures and compensatory mitigation are part of this pending permit, why aren’t they mentioned in the EA Tables of “proposed mitigations”? P 15, IX

Why isn’t the 1.05 acres cleared and converted to gravel or exposed rock near the SAFER entrance mentioned in the EA? P 91, I

E. (ESC)

What other “wetland areas will be affected by this project” that are not “delineated in Fig 6 and in the pending DEP Transition Area Waiver”? P 6, Fig6

When is ground disturbance anticipated for this project? P 10, Sec 3.1

Who is the “wildlife biologist or herpetologist” who will decide how these special silt fences or passageways will be configured on site? P 14, Sec 4.1

Will ANFO come down on the truck tires also before being rinsed or abraded of at the SCE next to GPBrook? P 16, Sec 4.3

What ‘do not disturb areas, have been identified, and by whom? Are they signed or flagged off? P 28, Sec 6.1

F. (EA)

Just how close to or far away from groundwater will this chamber be located (depth) in comparison to those unselected locations that were “too close”? P 2, Para 2

In the pictures in Chapter 2, which tunnel is right and which one is left? P 3, Para 1

What exactly are the significant impacts to Geology & Soils, Water Resources, and Biological Resources without the proposed mitigations – explain? P 3, Table 1

How much will groundwater elevations be permanently lowered (“throughout SAFER operations”)? P 4, Table 1

Explain how there are “no personnel on site during detonation testing”? How is testing performed, by remote control somehow? If so, how far away? P 2-10,11,12

When is excavation and construction scheduled to begin – time of year? P2-10,11, &12

Paragraph (page 2-13, para 5) about rock storage sites A and B does not match Fig 2-3; clarify orientation and gradients?

How and when is a rock stress study to be performed? What exactly is required to do such a study? P 2-10,11,12

Has the IM testing program been suspended since 2008 after the local fragment incident? P 2-13, Sec 2.3.3.2

Why did PICA apparently take no action to support and resume IM testing with the above ground FCTS when it was approved for development in April of 2010? P 2-13, Sec 2.3.3.2

What are “Other Species of Concern” within (Picatinny Arsenal and) “immediate surrounding area”? P 3-1 and Table 3.0-1

What (or who) defines “high quality natural areas or sensitive sites”? Besides plants, is “local extirpation of rare or sensitive animal species” a significant impact? P 3-1 and Table 3.0-1

How large is the paved parking area near the entrance? P 3-5, Para 2

What sort of utilities will be installed? P 3-5, Para 4

When are the daily trips by several concrete trucks to be scheduled through the gorge? P 3-8, Para 1

Will the unpaved road support 30-ton trucks for 96 trips per day without repeated road repairs or construction? P 3-8, Para 2

If rock hauling may require “more than 61 days”, why does it take less truck trips? P 3-8, Para 3

If BMPs are not required, will they be implemented in this project? P 3-20, Para 2

Who determines mitigation measures for any dewatering – construction or dewatering contractor, or Picatinny decision maker(s)? P 3-27, Para 5

How is a possible permanent dewatering plan and/or permit to “maintain lower groundwater elevations” NOT an ‘anticipated impact to groundwater’? P 3-27, Para 5

If groundwater presents a problem requiring a dewatering permit and/or other mitigation measures, will other construction work be halted/suspended while such details are being figured out? P 3-29, Sec 3.6.2, Para 2

What is the basis or assurance that geo-liner and concrete floor will “preclude” groundwater contamination during operation, especially if design is not yet finalized? This is a significant risk that must be evaluated very carefully! P 3-30, Para 3

There is no “Attachment D” in Appendix B. P 3-31, Sec 3.6.2.2, Paras 2,3

How are all these unknown variables being effectively and adequately analyzed to conclude a FNSI? So many uncertainties depending on “could be”, “might be”, “perhaps”, “if necessary”, “possible” all are grounds for developing an EIS. P 3-40, Para 3

What rodents or small mammals serve as prey for “amphibian populations”? P 3-44, Para 2

Who is Boriek, 2011 that is referenced? P 3-50 and 3-51

Has USFWS rendered a biological opinion for this project? P 3-57, Para 3

Will the schedule be planned to avoid certain seasons or months to minimize impacts to various wildlife? P 3-57, Para 5

The last sentence suggests that blasting or construction activities might occur after sunset and before sunrise. Is this true? P 3-58, Para 3

What is typical usable life of geo-liner per manufacturer? Is it multi-decades? P 3-59

Will vehicle oils and lubricants rinse into the nearby Green Pond Brook more easily after paving and more of it with added traffic? P 3-59

The roof of chamber is too close to surface (30 ft) according to criteria in Appendix B. P 3-67, Para 1

Isn't a cave-in a hazard? P 3-70, Sec 3.12.2

There is no mention of OSHA requirements in this section; yet the sight will apparently be fenced for some safety reason (page 3-60) – why? P 3-70, Sec 3.12.2

Where will the “temporary refuse storage area be established” near or on the SAFER site? P 4-4, Sec4.3.1.1 How large an area will this entail?

What mitigation measures or BMPs WILL be adopted to minimize attraction of nuisance or other wildlife? P 4-4, Sec 4.3.1.1

Why isn’t this area avoided (like it was in April, 2010 per EA for FCTS) or monitored due to its critical and sensitive and wild life habitats? P 4-6, Sec 4.3.1.8

ROG is not defined or in acronym list. What is ROG? PA-4, Table H-5

This table has erroneous values (e.g. column 5 for dump truck); and invalid foot notes. PA-5, Table H-7

Row 2 appears to populate from table H-4 totals; Row 3 should likely populate from table H-7 totals; yet there seems to be an unknown factor at play with the numbers – explain? PA-9, Table H-14

IMPACTS TO RARE SPECIES, INCLUDING STATE ENDANGERED, THREATENED, SPECIAL CONCERN SPECIES:

Picatinny Arsenal (PA) has long been recognized to contain critical habitat for some of New Jersey’s rarest plants and animals. An Integrated Natural Resource Management Plan (INRMP) and an Environmental Assessment (EA) developed for the implementation of the INRMP were authored by the Army in May of 2001. The standards and guidelines established therein referenced compliance with the National Environmental Policy Act (NEPA).

In addition, the recent Department of Defense Instruction (DODI) #4715.03, which became effective on March 18, 2011, further emphasizes that management of Species-at-Risk (SAR) are of fundamental importance, and that all practicable measures should be undertaken to avoid detrimental impacts to such species. Throughout each of these documents, it is abundantly clear that responsible stewardship for rare species occurring at Picatinny Arsenal would include both consultation and cooperation with state agencies responsible for SAR species of plants and animals, including in this case the New Jersey Endangered and Non-Game Species program for animals, and the Natural Heritage Program for plants.

Picatinny Arsenal has not conducted itself in a reasonable and practicable manner regarding rare species, because it has shunned collecting the required data necessary to evaluate the impacts of the proposed SAFER facility on Species-at-Risk (SAR). Not only has PA not bothered to collect data on SAR, in order that it may follow its directive to minimize impacts on SAR while pursuing its mission, it has not bothered to respond to direct overtures and requests by the State of New Jersey rare species experts. In a letter of Sept 19, 2011, from the State of NJ Department of Environmental Protection to Mr. Thomas Solecki, Chief, Environmental Affairs Division, DPW, Picatinny Arsenal, the State of NJ asks PA to delay the project one year to address 10 specific strategies to protect known critical habitat and minimize harm for 2 species of rare snakes. None of the requested strategies are unreasonable, they all appear to be practicable and in line with the directives of DODI #4715.03. As far as we can tell from careful reading of the draft FNSI, at least 9 of 10 of the requested measures have been ignored by PA.

Since it adopted its INRMP nearly 11 years ago, Picatinny Arsenal has been keenly aware of the many SAR concerns that a proposal such as the SAFER facility would have had to address. Yet, here it appears that PA is attempting to rush through the adoption of its draft FNSI, before it has even completed the final plans for the design of the SAFER facility, with no public hearing, virtually no time for public analysis and comment, and without conducting an Environmental Impact Statement (EIS). This is extremely

distressing to the environmental community in NJ, which through the presence of the INRMP, has always considered PA an excellent environmental steward.

We do not think it necessary at this time to produce an in depth, line-by-line analysis of the many shortcomings, contradictions, and simply incorrect biological assumptions and findings regarding the evaluation of rare species impacts in the draft Finding of No Significant Impact (FNSI) document prepared by Picatinny Arsenal. Here we list the Species At Risk that we know will endure negative impacts, but for which PA has failed to produce solid scientific justification for their finding of no significant impact:

- 1) Timber Rattlesnake: *State-Endangered and Regionally Imperiled*
- 2) Northern Copperhead: *State Species of Special Concern*

The additional field research required and protective measures necessary for these two SAR are clearly elucidated in the report "*Preliminary Habitat Assessment and Gestation/Birthing Site Surveys for Timber Rattlesnakes and Northern Copperheads within and adjacent to Picatinny Arsenal's Proposed SAFER Site*" developed by the NJ Department of Environmental Protection Endangered and Non-Game Species Program, October 2011. This recommendations found in this report are essentially ignored in the draft FNSI; the PA proposed mitigation measures are inadequate, and findings of no significant impact are superficial, unscientific, inadequate, and unjustified.

3. Wood Turtle: *State Threatened*
4. Eastern Box Turtle: *State Species of Special Concern*
5. Small-footed Bat: *Regional Species of Special Concern*
6. Sable Clubtail: *Special Concern Dragonfly Species*

These four species are essentially ignored in the PA draft FNSI, even though aspects of the construction and SAFER facility design present long-term, chronic threats to animal habitat quality due to wetland and stream degradation, insecure and dangerous roosting sites in rock piles, hazards to safe and free movement such as pits, cliffs, and fences, and other forms of traps.

The impacts of potential dewatering of the pristine tributary known as Green Pond Brook are essentially deferred for future consideration, so as to piecemeal and segment the impacts of the SAFER proposal instead of considering the total cumulative impacts, under a more appropriate, full EIS according to NEPA standards.

The Picatinny Arsenal Environmental Assessment from 2001 reports that there are more than 300 species of invertebrates on site. In actuality, if surveys were done, more than a thousand species of invertebrates would be found, and there would probably be many SAR invertebrates present, especially in the wetland habitats associated with Green Pond Brook. This is an example of why surveys are required and why cumulative wetland impacts and potential stream dewatering must be considered in an EIS.

Rare Plants: There are approximately 900 SAR plants in NJ, with hundreds of species known to occur in the NJ Highlands that are protected by current Highlands regulations. There are at least 4 SAR plants in the immediate vicinity of the proposed SAFER facility:

- stiff clubmoss
- featherfoil
- mountain holly
- variable sedge

Surveys must be conducted and will no doubt find additional SAR either in or near the proposed facility in any habitat type, whether upland forest or alongside vernal ponds and wetlands associated with springs and tributaries of Green Pond Brook. Again, it is not possible for PA to consider impacts and propose protections for SAR plants without conducting additional baseline survey work during 2012.

The shortcomings of the draft FNSI are so striking, relative to the required analysis set forth in the INRMP, the EA, the DODI #4715.03, that we request that Picatinny Arsenal delay the SAFER project from moving forward until reasonable and appropriate baseline biological surveys can be conducted during the upcoming full growing season –spring, summer, and fall of 2012. While it is not possible that every SAR can be detected and evaluated in only one year of field work, at least one full season of data collection is required for any responsible finding of fact to be attempted by PA personnel. Perhaps, after the 2012 growing season has passed and data has been collected and analyzed, construction, design and operation plans for SAFER which actually accomplish the goal of minimizing long-term harm to SAR may actually be proposed.

Perhaps by the end of 2012, Picatinny Arsenal will have determined the final design of the SAFER facility. The final design parameters could then be combined with the required biological data collected during the growing season of 20102, and PA could then produce a formal Environmental Impact Statement (EIS), in which they actually analyze alternatives and propose mechanisms to minimize harm to SAR plants and animals, pristine wetlands and stream tributaries with C1 waters, and other new critical ecosystem components discovered during 2012 fieldwork.

Summary

- A. Some of the issues and concerns of our coalition may not have been fully articulated, since some of our members with specialized knowledge of certain resources were not readily available in this short review period.
- B. Many plans or permits and especially mitigation measures are only apparent in reference documents (now provided); and even there only minimally. For a FNSI all mitigations should be clearly listed and fully developed to include monitoring methods and means.
- C. Many supporting references and even sections within single documents are contradictory and ambiguous. It should be clear that for this effort to move forward a lot more diligent effort with expert and detailed input from various stakeholders will be required.
- D. Although this is strong critique of this PICA endeavor, I do not wish for you to perceive that the New Jersey Highlands Coalition does not supportive the essential national defense work that takes place at Picatinny Arsenal, or the necessity to carry out the essential mission of this project. We have the highest regard for your R&D mission to sustain our troops, as much as we are dedicated to conserving and safeguarding our shared Highlands resources. I trust this project can be revised and managed so that our mutual commitments are met.

Thank you for this opportunity to provide comments on this project.

Respectfully submitted,



Elliott Ruga
Senior Policy Analyst
New Jersey Highlands Coalition



Emmie Devito, Ph.D.
Manager of Science and Stewardship
New Jersey Conservation Foundation

CC: Senator Robert Menendez
Senator Frank R. Lautenberg
Rep. Rodney Frelinghuysen
Scott Brubaker, NJDEP
John Parke, NJ Audubon