

NEPA REVIEW SCREENING FORM (NRSF) 3
Categorically Excluded Actions

Document ID #:
DOE/CX-00229

I. Project Title:

Hanford Fire Department and Life Flight Network, LLC Emergency Response Helicopter Training Exercises at the HAMMER Emergency Vehicle Operations Course

II. Describe the proposed action, including location, time period over which proposed action will occur, project dimension (e.g., acres displaced/disturbed, excavation length/depth), and area/location/number of buildings. Attach narratives, maps and drawings of proposed action. Describe existing environmental conditions and potential for environmental impacts from the proposed action. If the proposed action is not a project, describe the action or plan.

BACKGROUND AND PROPOSED ACTION

The U.S. Department of Energy (DOE), Richland Operations Office (RL), and Hanford Mission Integration Solutions (HMIS) Hanford Fire Department (HFD) propose to utilize Life Flight Network, LLC (Life Flight) to perform emergency response training exercises using a helicopter at the Hanford Site Volpentest Hazardous Materials Management and Emergency Response Federal Training Center (HAMMER) Emergency Vehicle Operations Course (EVOC). Life Flight is a not-for-profit patient transport service providing helicopter, fixed wing, and ground ambulance transport, as well as training for Emergency Medical Services (EMS) agencies throughout Oregon, Washington, Idaho, and Montana. In the past, HFD has conducted similar training exercises at HAMMER between the Burn Building and Training Tower. The proposed training exercises would be conducted on asphalt paved surfaces at either the Helicopter Landing Pad or Skills Pad at the EVOC (see Figure 1). All helicopter flights scheduled during the month of July would utilize the Skills Pad only and those in August would utilize either landing zone as discussed in the Ecological Resources Review section.

The purpose of the training exercises is to provide better awareness, familiarization, understanding of expectations, and improved coordination and integration of on-scene operations between the HFD and Life Flight helicopter crew. The training exercises would include an interactive classroom portion conducted by Life Flight training instructors to better understand the expectations, protocols, objectives, and operating procedures. The second part of each session would be a simulated hands-on training exercise to familiarize HFD personnel with the launching, coordinating, and landing of the Life Flight helicopter in accordance with standard operating procedures for safety and conduct of operations. Once the helicopter has landed and is secured, the pilot would give authorization for HFD and Life Flight personnel to approach the rotorcraft. At this time the Life Flight crew would conduct the hands-on portion of the training exercises showing HFD personnel what is expected on-scene and providing information regarding patient loading, packaging, and general expectations for effective, efficient, and safe patient care. At the completion of the training exercises on-ground participants would clear the landing zone and the helicopter would depart the EVOC and return to the Richland Airport or other location off the Hanford Site, as determined by the Life Flight crew.

HFD and Life Flight personnel would remain "on call" during the training exercises to provide emergency services and may need to respond at any time. In such an event the area would be secured so the helicopter can respond in a safe manner. In the event of an emergency involving personnel in and near the training exercises, HFD and Life Flight would support Emergency Medical Services personnel, provide transport as needed, and notify the HAMMER Operations Manager and others, as appropriate.

The training exercises are planned on July 25, 26, and August 2, 2023; however, other dates may be selected as deemed necessary by HFD and Life Flight in conjunction with HAMMER training personnel. Life Flight would support HFD training exercises using an Augusta Westland AW119Kx "Koala" helicopter (see Figure 2). The helicopter would depart from the Richland Airport located at 1903 Terminal Dr, Richland, Washington, which is approximately four air miles southeast of HAMMER and the EVOC (see Figure 3). The helicopter would travel at approximately 1,000 feet above ground level (AGL) until reaching the EVOC and would reduce altitude down to 500 feet AGL prior to approaching and landing at either of the two proposed landing zones as discussed herein. Two helicopter flights are scheduled to occur each day, one in the morning and one in the afternoon.

SITE DESCRIPTION

The EVOC was developed to train law enforcement officers, emergency responders, and other driving specialists in techniques necessary to successfully complete their missions in a safe and

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efficient manner. The 1.3 mile asphalt roadway includes a quarter-mile straightaway, nine curves of varying radii and elevation changes, an intersection, and a helicopter landing pad. An adjacent 160,000 square-foot asphalt Skills Pad provides a separate area for backing, auto-cross, and skid car training. The Skills Pad may also be used as a helicopter landing zone.

MITIGATION OF ADVERSE EFFECTS

Life Flight would be responsible for mitigation of potentially adverse effects to the human environment resulting from the proposed helicopter training exercises along the entire flight path from Richland Airport to the EVOC and back. The primary impacts would be from noise and vibration during the helicopter training exercises and transitioning to and from the EVOC landing zones as discussed herein.

As part of the proposed action, Life Flight would implement appropriate Best Management Practices (BMPs) that minimize impacts to the human environment. These BMPs include, but may not be limited to, adherence to appropriate safety protocols, policies, and procedures including the avoidance of low-altitude flight above noise sensitive residential and other areas.

RESOURCE AREA DISCUSSION

Land Use

The HAMMER and EVOC facilities are substantially industrial in nature and located in an area of the Hanford Site designated for industrial uses by the Hanford Comprehensive Land Use Plan Environmental Impact Statement (HCLUP EIS, DOE/EIS-0222-F). Since selected helicopter landing sites at the EVOC would be located away from populated areas and proposed training exercises are consistent with the land use map, designations, policies, and procedures established by the HCLUP EIS and Record of Decision (ROD) for the HAMMER and EVOC areas, potential incompatibilities with the Hanford Site land use plan would not occur.

Air Space Use and Safety

Life Flight activities conducted in airspace controlled by or under the jurisdiction of the Federal Aviation Administration (FAA) would follow FAA procedures for air traffic control, planning, coordination, and services provided during the training exercises. These procedures deal with issues including, but may not be limited to, coordination and scheduling, communications, flight paths, flight altitudes, flight speeds, and separation of aircraft. The FAA procedures are in place to prevent air collisions and other potential accidents.

Since helicopter refueling operations would be performed by Life Flight off the Hanford Site at the Richland Airport or other appropriate location, and periodic maintenance and pre-flight equipment inspections would be conducted by Life Flight to ensure proper helicopter operability and safety, the potential for fuel, oil, or hydraulic fluid spills on the Hanford Site is considered insignificant. However, Life Flight would be responsible for cleaning up all fuel, oil, or hydraulic fluid spills that occur on the Hanford Site as a result of the proposed training exercises and complying with applicable regulatory requirements.

Collisions between aircraft and birds represent a potential airspace safety hazard. The most serious strikes for helicopters are windshield strikes, which have resulted in pilots experiencing confusion, disorientation, loss of communications, and aircraft control problems. Bird strike risks tend to be highest near areas where birds congregate and during certain times of the year when bird migration is prevalent. The EVOC is in close proximity to the Columbia River, which is part of the "Pacific Flyway" used by migratory birds. The Ecological Resources Review section provides mitigation measures to avoid potential impacts.

A wide range of avionics are incorporated in the Augusta Westland AW119Kx "Koala" helicopter. These include, but may not be limited to, conventional flight instruments such as the Garmin G1000 glass cockpit, which is designed to improve situational awareness, reduce pilot workload, and increase safety. Primary flight and other key information is displayed to the pilots on two large multi-function displays in the cockpit; an independently powered stand-by display is also present in case of system failure. Other avionics used include a 3-axis aircraft flight control system, synthetic vision system, highway in the sky depiction, moving map display, radio altimeter, state-of-the-art navigation system (VHF omnidirectional range system, instrument landing system, global

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positioning system, wide area augmentation system), aural warning generator, and embedded helicopter terrain avoidance warning system. The helicopter may also be equipped with a reinforced windshield, wire strike protection system, and forward looking infrared camera, as appropriate.

The Augusta Westland AW119Kx "Koala" helicopter has a cruising speed of 152 miles per hour; range of 593 miles; flight time of almost six hours; service ceiling of 15,000 feet; and rate of climb of 1,790 feet per minute.

Noise and Vibration

General day-night ambient noise level (DNL) estimates for various types of land use vary widely, from approximately 35 dBA in wilderness areas to a maximum of 85 to 90 dBA in the noisiest urban areas. The Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978 (42 U.S. Code 4901-4918), requires federal agencies to conduct their programs in a manner that promotes an environment free of any noise that could jeopardize public health or welfare.

The Augusta Westland AW119Kx Koala helicopter employs a four-bladed fully articulated main rotor. The composite rotor blades are designed to produce maximum lift with minimum noise, and feature tip caps to reduce noise. Aluminum honeycomb structural panels are used throughout the airframe, which absorb both noise and vibration, thus requiring no additional vibration absorption systems to be employed.

According to Helicopter Association International, the sound level of a helicopter flying at 500 feet AGL is approximately 87 dBA. At 1,000 feet the sound level drops to approximately 79 dBA. The difference in sound level may not seem large, but it is in fact significant, reducing the resultant noise by half its impact. This is because sound levels are measured according to a logarithmic scale. For comparison, these noise levels are similar to a farm tractor, motorcycle, or power lawnmower.

The Laser Interferometer Gravitational Wave Observatory (LIGO) is located approximately 3.0 miles northwest of the HAMMER and EVOC. LIGO's mission is to directly observe gravitational waves of cosmic origin. This research is sensitive to noise and vibration. Helicopter flight routes would avoid airspace near the LIGO Facility.

The Pacific Northwest National Laboratory (PNNL) is located approximately 0.5 miles directly east of the HAMMER and EVOC. A portion of PNNL's research at the Environmental Molecular Sciences Laboratory (EMSL) is conducted at the molecular level and is sensitive to noise and vibration. Helicopter flight routes would avoid airspace near the PNNL Campus and EMSL.

Air Quality

The potential contribution of greenhouse gases to the atmosphere from the proposed action would be temporary and insignificant due to use of a single helicopter and short duration of the training exercises. The helicopter would land on asphalt paved surfaces at the EVOC. Takeoff and landing activities have the potential to cause some erosion of the soil through rotor wash, a phenomenon in which the wind produced by helicopter rotors dislodges and moves soil from the ground, creating fugitive dust. The greatest risk for this type of wind erosion would be during extended hovering in areas with fine soils and under dry conditions. The proposed landing zones at EVOC are asphalt paved surfaces and surrounding soils are covered with vegetation. Therefore, helicopter effects on soil erosion, fugitive dust, and air quality would be temporary, restricted to localized areas, and would not be significant.

Cultural Resources Review (KSRDD6245)

DOE-RL Cultural and Historic Resources Program determined that the proposed helicopter training exercises are a type of undertaking that has no potential to affect historic properties; therefore, no further obligations exist under 54 U.S.C. 306108 (formerly known as Section 106) of the "National Historic Preservation Act" (NHPA). The proposed helicopter training exercises would not result in ground disturbance since landing zones at the EVOC are previously disturbed and paved with asphalt. Furthermore, there would be no off-road driving. Therefore, a cultural resources review is not required. If there are any changes in the scope of the Proposed Action that would result in disturbances on the Hanford Site outside the EVOC Helicopter Landing Pad and Skills Pad project areas, then additional cultural resources review would be required.

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Ecological Resources Review (ECR-2023-627)

DOE-RL Ecological Compliance performed a field survey of the proposed project site at the EVOC. The EVOC is dominated by cheatgrass with other native and non-native plant species sparsely interspersed. No plant species protected under the Endangered Species Act, candidates for such protection, or species listed by Washington State as threatened or endangered have been observed in the vicinity of the EVOC. Helicopter training exercises would be of short duration and confined to previously disturbed and developed areas that are asphalt paved surfaces. There would be no ground disturbance other than that created by helicopter rotor wash. The impact of winds created by helicopter rotors on plant species would be temporary and insignificant.

Several active artificial Burrowing Owl burrows are located around the EVOC and adjacent to the proposed helicopter landing zones requiring restricted approaches for landing to avoid potential impacts to the Burrowing Owl population (see Figure 4). The Burrowing Owl is classified as a Washington Department of Fish and Wildlife (WDFW) Candidate Species due to a recent population decline throughout Washington State. This decline is generally considered to be the result of loss of habitat and reduced numbers of ground squirrels, yellow-bellied marmots, and badgers that create burrows used by the owls. Burrowing Owls are protected under the "Migratory Bird Treaty Act." Most of the individuals that nest on the Hanford Site migrate south for the winter and return for the spring; however, a few individuals reside on the site year-round. To avoid potential impacts to Burrowing Owls and their young, the following restrictions would be followed:

- No off-road landings, foot traffic, or vehicle traffic is authorized.
- Project personnel, vehicles, and helicopter must remain on the paved or graveled surfaces within the EVOC.
- The helicopter flight path to and from the EVOC area would be planned and executed to avoid flying directly over any burrows/perches as depicted in Figure 4.
- All helicopter flights scheduled during the month of July would utilize the Skills Pad landing area only. Helicopter flights in August may utilize either the Skills Pad or Helicopter Landing Pad.
- Project management would contact DOE-RL Ecological Compliance with details prior to conducting the helicopter flights for potential monitoring of Burrowing Owls during the training exercises.

Although the proposed helicopter flights do not include other areas of the Hanford Site, the HAMMER and EVOC are located in the general vicinity of protective natural resource buffer zones, which include ferruginous hawk and bald eagle nest and roost sites (see Figure 5). During the active nesting and/or roosting periods, indicated in Figure 5, helicopter flights would maintain a minimum 3,300 feet "no fly" slant distance around these protective natural resource buffer zones to limit disturbance and avoid nest abandonment by these birds, which are protected under the "Migratory Bird Treaty Act." A common measure of exposure is the distance from the aircraft to the affected resource, referred to as the "slant distance." This measure has two advantages: (1) distance is sometimes a better predictor of wildlife response than sound pressure and (2) distance incorporates both the acoustic and visual stressors associated with overflights. The slant distance is the hypotenuse of the right triangle that includes the altitude and lateral distance to the affected resource. If the overflight is almost overhead, slant distance may be assumed to be equivalent to altitude. If the altitude is low (at or below 1,000 feet), the lateral distance is a close approximation of the slant distance.

There is always the potential for birds to nest within the project area on the ground, on buildings, or equipment. The nesting season at the Hanford Site and in surrounding areas is typically from mid-March to mid-July. Project management would instruct personnel involved in the proposed training exercises to watch for nesting birds. If any nesting birds are encountered or suspected, or bird defensive behaviors are observed within the project area, then project management would contact DOE-RL Ecological Compliance to evaluate the situation. No adverse impacts to ecological resources are anticipated from the proposed training exercises. The ecological resources review is valid for one year from the issuance of the clearance letter, which is dated July 11, 2023.

Finally, helicopter flights over the Hanford Site have been observed to induce a panic response in terrestrial mammals, especially elk and mule deer. Hanford elk and mule deer may be sited in the general vicinity of the HAMMER and EVOC. If elk or deer are seen during the helicopter overflight at any location on the Hanford Site, then efforts to increase the slant distance to a minimum of

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1,500 feet would be taken.

CONCLUSIONS/NEPA DETERMINATION

HFD's proposed Life Flight helicopter training exercises at the EVOC would have no significant direct, indirect, or cumulative impacts on the quality of the human environment provided mitigation measures and best management practices discussed in this NEPA Review Screening Form (NRSF) are adhered to. This is an Activity-Specific Categorical Exclusion based on the provisions of DOE's NEPA implementing procedures at 10 CFR 1021, Subpart D, Appendix B, Categorical Exclusion (CX) B1.2, "Training Exercises and Simulations." This CX addresses training exercises and simulations (including, but not limited to, firing-range training, small-scale and short-duration force-on-force exercises, emergency response training, fire fighter and rescue training, and decontamination and spill cleanup training) conducted under appropriately controlled conditions and in accordance with applicable requirements. This NRSF only applies to the Proposed Action to conduct Life Flight helicopter training exercises at the EVOC as described herein. Any changes to the Proposed Action or future requests for helicopter training exercises on the Hanford Site at DOE managed facilities would be evaluated on a case-by-case basis.

III. Existing Evaluations (Provide with NRSF to DOE NCO):

Maps:

- FIGURE 1 - Proposed Helicopter Landing Zones at the Emergency Vehicle Operations Course (EVOC)
- FIGURE 2 - Life Flight Network, LLC Augusta Westland AW119Kx "Koala" Helicopter
- FIGURE 3 - Approximate Flight Path from Richland Airport to Emergency Vehicle Operations Course (EVOC)
- FIGURE 4 - Approximate Landing Zone Approach at Emergency Vehicle Operations Course (EVOC) to Avoid Burrowing Owl Artificial Burrow Locations
- FIGURE 5 - Hanford Site Natural Resource Buffers Overview

Other Attachments:

N/A

IV. List Applicable CX(s) from Appendix B to Subpart D of 10 CFR 1021:

B1.2, "Training Exercises and Simulations"

V. Integral Elements and Extraordinary Circumstances (See 10 CFR 1021, Subpart D, B. Conditions that are Integral Elements of the Class of Actions in Appendix B; and 10 CFR 1021.410(b)(2) under Application of Categorical Exclusions)	Yes	No
Are there extraordinary circumstances that may affect the significance of the environmental effects of the proposed action? If yes, describe them.	<input type="radio"/>	<input checked="" type="radio"/>
Is the proposed action connected to other actions with potentially significant impacts, or that could result in cumulatively significant impacts? If yes, describe them.	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action threaten a violation of applicable statutory, regulatory, or permit requirements related to the environment, safety, health, or similar requirements of DOE or Executive Orders?	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action disturb hazardous substances, pollutants, contaminants, or natural gas products already in the environment such that there might be uncontrolled or unpermitted releases?	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action have the potential to cause significant impacts on environmentally sensitive resources? See examples in Appendix B(4) to Subpart D of 10 CFR 1021.	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, such that the action is not contained or confined in a manner designed, operated, and conducted in accordance with applicable requirements to prevent unauthorized release into the environment?	<input type="radio"/>	<input checked="" type="radio"/>

If "No" to all questions above, complete Section VI, and provide NRSF and any attachments to DOE NCO for review.
 If "Yes" to any of the questions above, contact DOE NCO for additional NEPA review.

VI. Responsible Organization's Signatures:

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Initiator:

Jerry W. Cammann, HMIS/NEPA SME
Print First and Last Name

JERRY CAMMANN
(Affiliate)

Digitally signed by JERRY CAMMANN (Affiliate)
Date: 2023.07.18 09:23:11 -07'00'
Signature / Date

Cognizant Program/Project Representative:

Anders J. Wiborg, DOE-RL/PFD
Print First and Last Name

Anders J. Wiborg

Digitally signed by Anders J. Wiborg
Date: 2023.07.18 09:34:36 -07'00'
Signature / Date

VII. DOE NEPA Compliance Officer Approval/Determination:

Based on my review of information conveyed to me concerning the proposed action, the proposed action fits within the specified CX(s): Yes No

Douglas H. Chapin, DOE Hanford NCO
Print First and Last Name

Douglas H. Chapin

Digitally signed by Douglas H. Chapin
Date: 2023.07.18 09:54:35 -07'00'
Signature / Date

NCO Comments:

FIGURES FOR DOE/CX-00229

**HANFORD FIRE DEPARTMENT AND LIFE FLIGHT NETWORK, LLC EMERGENCY RESPONSE
HELICOPTER TRAINING EXERCISES AT THE HAMMER EMERGENCY VEHICLE OPERATIONS
COURSE**

6 Pages Including This Page

FIGURE 1 – Proposed Helicopter Landing Zones at the Emergency Vehicle Operations Course (EVOC)

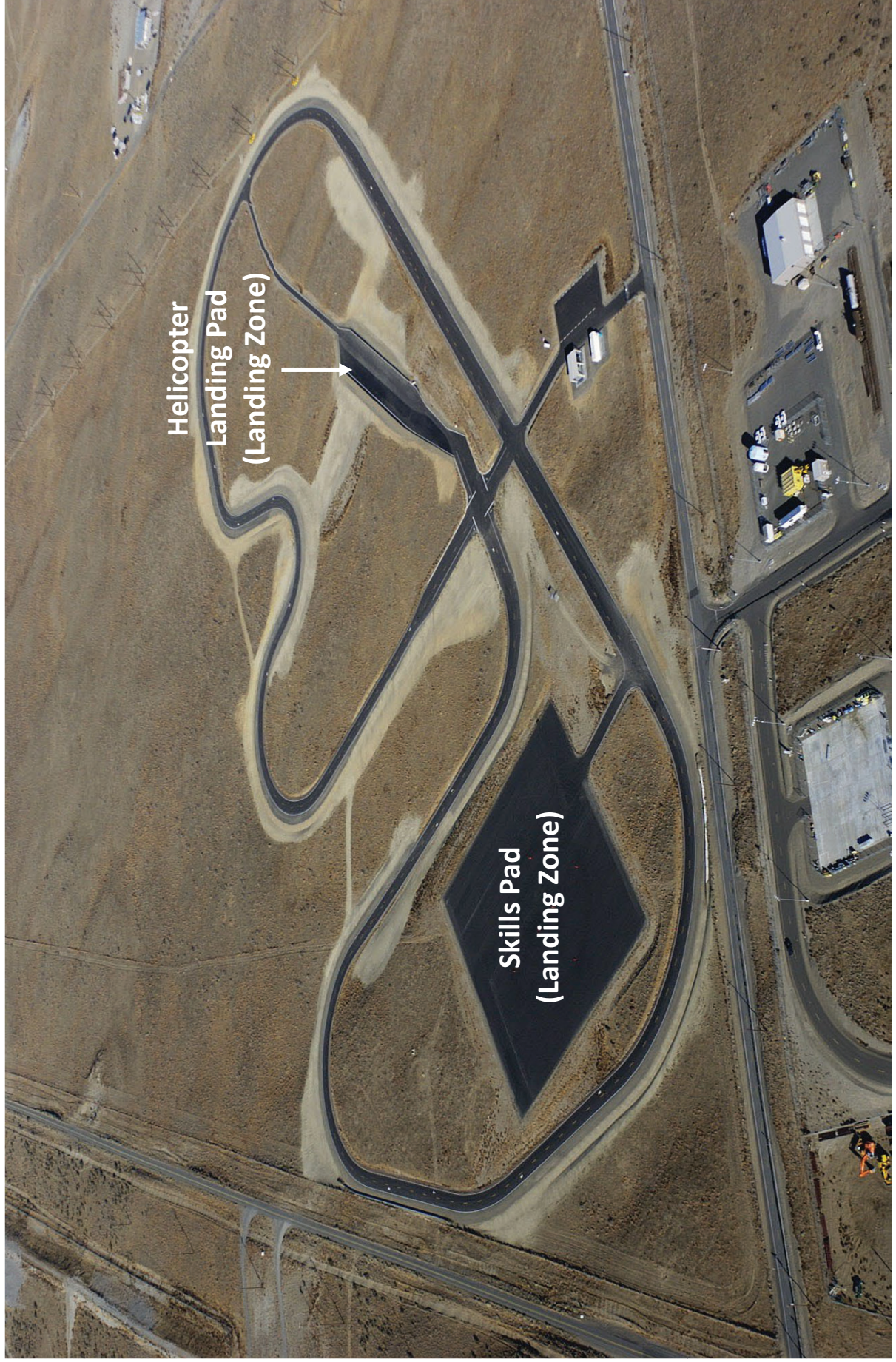


FIGURE 2 – Life Flight Network, LLC Augusta Westland AW119Kx “Koala” Helicopter



FIGURE 3 – Approximate Flight Path from Richland Airport to Emergency Vehicle Operations Course (EVOC)

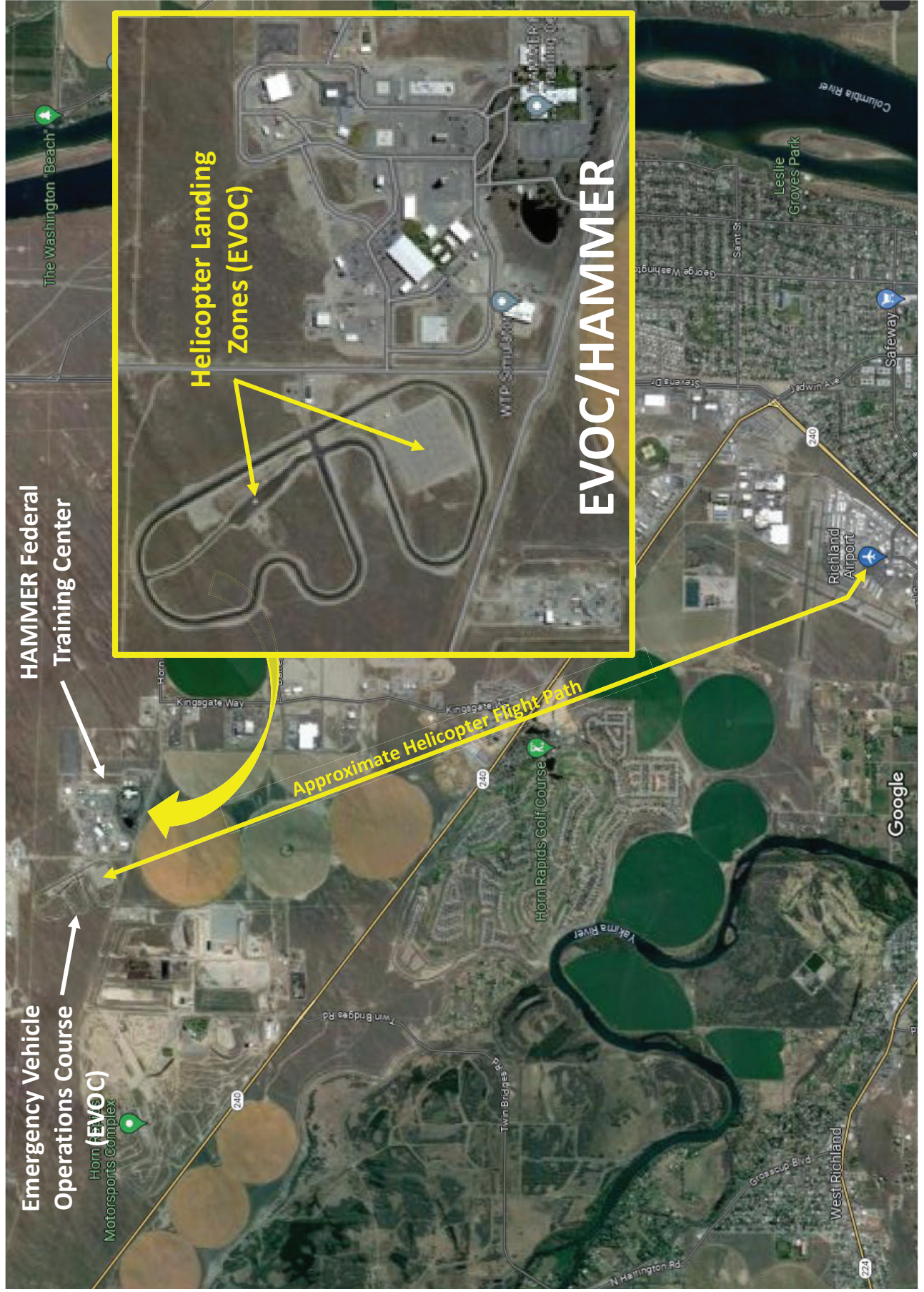


FIGURE 4 – Approximate Landing Zone Approach at Emergency Vehicle Operations Course (EVOC) to Avoid Burrowing Owl Artificial Burrow Locations



LEGEND

- Active Burrowing Owl Artificial Burrow
- Inactive Burrowing Owl Artificial Burrow
- H Proposed Landing Areas
- Recommended Approach Path

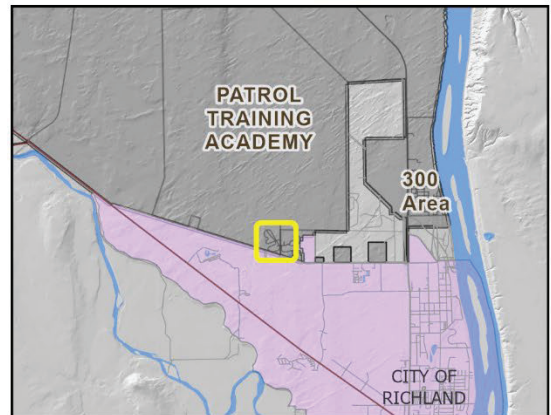
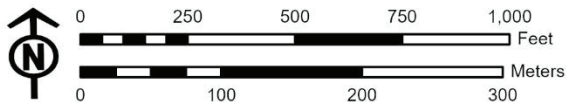
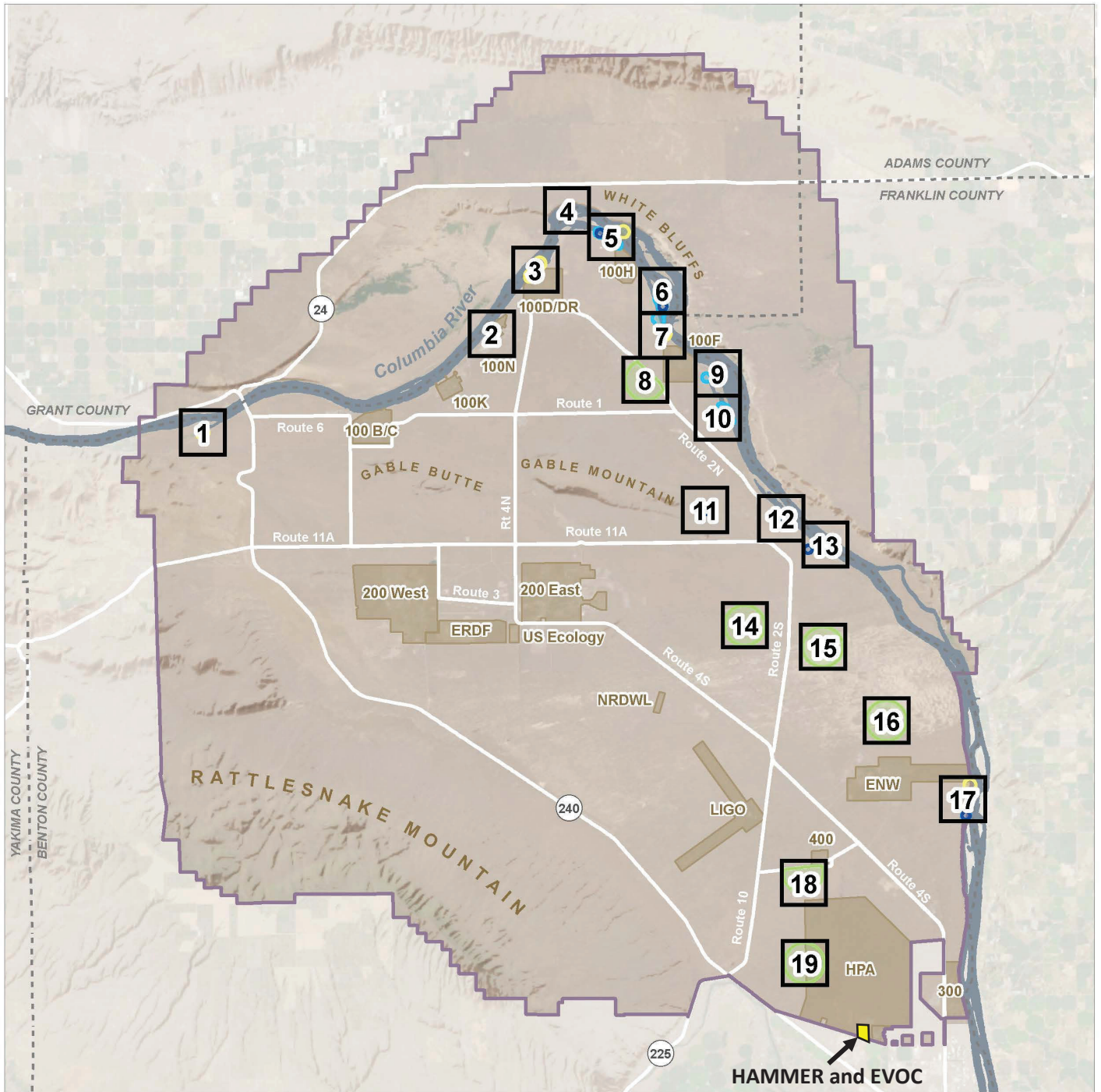


Figure 1. Project Area Overview

ECR-2023-627 | Life Flight Training at HAMMER
Hanford Site, Benton County, WA

FIGURE 5 – Hanford Site Natural Resource Buffers Overview



Hanford Natural Resource Buffers OVERVIEW

Hanford Site, Benton County, Washington

Dates Areas are Protected

- February 15 to July 31
- March 1 to July 31
- November 15 to July 31
- November 15 to March 15

Hanford Site Boundary

Hanford Site Areas

