



## Manual: Environmental Site Assessment Standards & Reporting Requirements

The Virginia Housing Development Authority (“VHDA”) requires site-specific environmental assessment for all development proposals being considered for TCAP funds. At a minimum, VHDA requires a Phase I Environmental Site Assessment (“Phase I”), in accordance with, but not limited to, standards developed by the American Society for Testing and Materials’ (“ASTM”) and set forth in the “Standard Practice for Environmental Site Assessments, Phase I Site Assessment Process.”, ASTM 1527-05. For projects which request TCAP funds or list other HUD funding sources, including but not limited to Project Based Rental Assistance (“PBRA”), the Environmental Professional (see Section A(3)(a) below) must complete the HUD Environmental Questionnaire.

This manual should be used in conjunction with the following:

1. VHDA Environmental Review Process document
2. Owner Environmental Questionnaire and Disclosure Statement (to be given to VHDA and the Environmental Professional)
3. HUD Environmental Questionnaire (to be completed by the Owner and Environmental Professional)
4. HUD Environmental Assessment Checklist and Conclusions (to be included by Environmental Professional in Executive Summary section of report)
5. Environmental Certification (VHDA form to be completed by the Environmental Professional)

### Standard Phase I Report

A Phase I serves as a screening process designed to discover environmental concerns, recognized environmental conditions and non-scope issues which may potentially impact the subject property, and to ensure that “all appropriate inquiry” (as that term is defined by the EPA in 70 Fed. Reg. 66070, 72; 40 C.F.R. Part 312) is conducted. Subsequent investigations, e.g. Phase II, Phase III are intended to further investigate environmental issues raised in the Phase I.

VHDA requires that the environmental professional follow ASTM guidelines (2005 standards), or any updated version promulgated by ASTM which meets the requirements of the EPA’s AAI regulations (the “ASTM Standards”), in conducting Phase I Environmental Site Assessments.

Any Phase I submitted to VHDA must demonstrate that all appropriate inquiry into previous ownership and use of the property consistent with good commercial or customary practice was conducted. Applicants must use appropriate due diligence when evaluating the property and investigating surrounding areas that may impact the property, in short they should make “all appropriate inquiries” to learn their true condition. Applicants must become familiar with federal, state, and local health, safety, and environmental laws governing the property. Developers and owners must disclose their knowledge of actual or suspected environmental concerns in accordance with

ASTM Standards and are strongly encouraged to contact VHDA if unusual or questionable conditions exist.

### Phase I Requirements

1. The Phase I Report **must** be in the format shown (see Required Format for Phase I Report below). Phase I Reports which deviate from this format including addition of sub-sections, may not be accepted. The inclusion of additional appendices to the Phase I Report is acceptable. Please note that if a prescribed sub-section or appendix is not applicable, the Environmental Professional must note "Not Applicable" or "Not Available" in that section of the report or that appendix.
2. The Phase I must substantially comply with ASTM E 1527-05 or any updated version promulgated by ASTM which meets the requirements of the EPA's AAI regulations.
  - a. The Phase I Report must contain a statement that ASTM E 1527-05 (or any updated version) was used in completing the Phase I and that "all appropriate inquires" were conducted.
  - b. The Environmental Professional must include a description of the procedures followed while conducting the Phase I investigation in the Phase I Report, including a detailed scope of services.
  - c. Generally, most Phase I Reports are performed to qualify for one of the three landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 *et seq.* (1980): the innocent landowner limitation; the contiguous property owner limitation; or the *bona fide* prospective purchaser limitation. The Environmental Professional must consult with the applicant to determine the applicant's purpose in performing the Phase I and must set forth the purpose for which the Phase I site investigation was undertaken in the Phase I Report. Specifically, the Environmental Professional must expressly state that he understands that the purpose of the Phase I is to ascertain whether the property is environmentally suitable for construction of a multifamily housing.
  - d. The environmental report(s) should be submitted in electronic format.
3. The Phase I must be performed under the supervision of, reviewed, signed, and certified by an Environmental Professional. The Environmental Certification (VHDA form) must appear immediately following the cover page of the Report.
  - a. An "Environmental Professional" is, as defined in 40 C.F.R. § 312.10(b):
    - (i) A Professional Engineer ("P.E.") or a Professional Geologist ("P.G.") who is licensed to practice engineering or geology, respectively, in the state of Virginia with at least three (3) years full-time "relevant experience," including but not limited to participation in performance of environmental site assessments which involved the understanding of surface and subsurface environmental conditions.
      - (1) The term "relevant experience" is used here as it is defined in 40 C.F.R. § 312.10(b).

- (2) The P.E. or P.G. must be an employee or principal of the environmental consulting firm retained to complete the environmental assessment.
    - (ii) A person with at least a Baccalaureate degree from an accredited institution in engineering or science who is licensed to perform environmental site assessments and to conduct all appropriate inquiries in the state of Virginia with at least five (5) years full time relevant experience.
    - (iii) A person having ten (10) years relevant experience.
  - b. The Phase I must include in Appendix H, the resume(s) which describe the qualifications of all personnel involved with the Phase I environmental site assessment; the qualifications of all such personnel must also be discussed in Section 2.4 of the Phase I Report.
  - c. The Environmental Professional may not be affiliated with the developer/owner, or a buyer or seller of the property, or a firm engaged in any business that might present a conflict of interest or give the appearance of a conflict of interest.
- 4. The Phase I Report must include in Appendix A a to scale, site map showing the following.
  - a. An area large enough to display the relative location of the site in its orientation to adjacent properties and facilities, with existing streets and drives within fifty (50) feet of the site.
  - b. Delineation of the perimeter of any major existing structures on the site.
  - c. Any visible or reasonably ascertainable easements on the site.
  - d. Environmental concerns where applicable.
  - e. Direction (established or presumed) of groundwater flow.
  - f. The boundaries of any floodplains, wetlands, or potential State Waters on or adjacent to the site.
- 5. The Phase I Report must include a comprehensive historical review of the subject property.
  - a. At minimum, the Phase I must include in Appendix D a copy of documentation provided by the title company or title professional regarding reasonably ascertainable recorded land title records and records of environmental liens and activity and use limitations. The Environmental Professional must discuss the chain of title, records of environmental liens and activity and use limitations associated with the property and any other pertinent records found by the title company or title professional in the historical records review which, when reviewed in its entirety, clearly shows a history of previous uses of the property back to 1940 or the property's obvious first developed use, whichever is earlier.
    - (i) This review *must* consider the "standard historical sources" listed in Section 8.3.4.1 through 8.3.4.8 of ASTM E 1527-05, to the extent required by ASTM.

- (ii) VHDA may, at its sole discretion, also require the review of any sources listed in Section 8.3.4.9 of ASTM E 1527-05.
- b. The Environmental Professional must comment on the results of the historical review. The historical review must:
  - (i) State whether information about environmental liens or activity and use limitation records was reasonable ascertainable,
  - (ii) Describe what efforts were made to identify environmental liens and/or activity and use limitations, and give a professional opinion as to any potential environmental concerns,
  - (iii) Recognized environmental conditions and/or non-scope issues identified.

If no recognized environmental conditions were identified in the historical review, the Environmental Professional must conclusively say so in the historical review section of the Phase I Report. The Environmental Professional must also state in the historical review section whether or not any non-scope issues were identified in the historical review. Environmental lien information can often be obtained along with chain-of-title information. Although some of these items are designated user responsibilities in ASTM E 1527-05, VHDA requires that the Environmental Professional research, evaluate and assess these matters.

- 6. The Environmental Professional must make reasonable efforts to conduct all interviews required by ASTM as part of the Phase I site assessment.
  - a. Note that for abandoned properties, the Environmental Professional must also interview owners and occupants of neighboring properties.
  - b. The Environmental Professional must also make a reasonable attempt to interview at least one staff member at each of the following: local fire department; state or local health department or environmental agency; local agency responsible for issuance of building permits; local agency responsible for issuance of groundwater use permits; state or local agency with jurisdiction over hazardous waste disposal.
  - c. Documentation of all interviews (or documentation of attempts to complete such interviews) must be included in Appendix G.
- 7. The consultant preparing the Phase I Report must gather, from the user(s) of the Phase I Report, all information required in Section 6 of ASTM. Information obtained from the user interview(s) must be included in Section 4.3.4 of the Phase I Report, and documentation of the interview(s) must be included in Appendix G.
  - a. The applicant must be interviewed as a "user" for every Phase I Report submitted to VHDA. Additionally, for purposes of applications submitted to VHDA, all of the following parties are also considered "users": VHDA, the entity that has title to the property or the entity that will take title to the property, development partners, development equity partners, and any other party which would be defined as a "user" within the meaning of Section 3.2.93 of ASTM.

- b. Where there are multiple users, the text of Section 4.3.4 of the Phase I Report should make clear from which user the information was obtained.
  - c. If the consultant preparing the Phase I Report was unable to interview any one or more users, the consultant must describe what attempts were made to interview such users, include documentation of these attempts in Appendix G, and discuss the data gap in Section 6.0.
8. The Phase I Report (including, but not limited to, regulatory database reviews, interviews, and searches for recorded environmental liens) must be no older than 180 days old at the time of application submission.
- a. The date of the Phase I Report shall be clearly placed on the cover page of the Report.
  - b. The date of the site reconnaissance shall be specified in Section 5.1 of the Phase I Report. The Phase I Report must be issued no more than sixty (60) days after the site reconnaissance, unless waived by VHDA at its sole discretion.
  - c. Under no circumstances may Phase I reports greater than one (1) year old be submitted to VHDA, except as part of the review of previous environmental reports in Section 5.5.7 of the Phase I Report, even if an update for the Phase I is conducted.
  - d. VHDA reserves the sole right to require an update of any Phase I which is equal to or greater than one hundred eighty (180) days old at the time final approval of any application or at any time prior to commencement of construction if additional information regarding an environmental issue is discovered.
  - e. Phase I Reports performed in accordance with ASTM Standards E 1527-97 or E 1527-00 may not be "updated" to meet ASTM E 1527-05 requirements. If a previous site assessment performed in accordance with ASTM E 1527-97 or E 1527-00 will be greater than or equal to one hundred eighty (180) days old on or before the closing of the transaction, a new Phase I site assessment conforming to ASTM E 1527-05, other updated version promulgated by ASTM which meets the requirements of the EPA's AAI regulations, must be performed.
9. If an updated Phase I report is necessary because the original Phase I report is between one hundred eighty (180) days and one (1) year old at the time of application submission, then the updated Phase I must include the following updated components, in accordance with Section 4.6 of the ASTM Standards:
- a. Description of the new site reconnaissance, including visual inspection of the property and of adjoining properties.
  - b. Updated site photos.
  - c. Updated federal, tribal, state, and local governmental records.
  - d. Updated search for environmental liens.
  - e. New interviews with owners, occupants, and operators of the property (or of neighboring properties, in the case of an abandoned or vacant site).
  - f. All original materials and updates.
  - g. The opinion of an Environmental Professional addressing all conditions (changed and unchanged) at the site.

- h. A signature page, signed by all appropriate parties in their respective capacities.
  - i. The Environmental Certification (VHDA form) signed by the Environmental Professional who conducted the update.
- 10. The Environmental Professional must address any previous environmental site assessments (Phase I and/or Phase II) that were performed for the subject property in Section 5.5.7 of the Phase I Report, and include the available previous Reports in Appendix I of the Phase I Report.
- 11. The Phase I Report must reflect all of the Environmental Professional's investigations and findings and contain an Executive Summary setting forth clearly written conclusions, including the exact language from either Section 12.8.1 or Section 12.8.2 of the ASTM Standards, as appropriate, and recommendations. The Environmental Professional's opinions must be included in the Phase I Report in the manner described below. The Phase I Report must also identify and comment upon:
  - a. All supporting data and test results.
  - b. Any and all data gaps, as defined in Section 3.2.20 of the ASTM Standards, that affect the ability of the Environmental Professional to identify recognized environmental conditions, suspected environmental concerns and/or non-scope issues.
    - (i) Data Gaps must be discussed in Section 6.0 of the Phase I Report.
    - (ii) The Environmental Professional must also enumerate in this section the good faith efforts made to gather the information that could not be obtained.
  - c. Commonly known/reasonably ascertainable information available to the user(s) or which the Environmental Professional is required to obtain under AAI. This information must be discussed in either Section 4.3.4.4 or Section 5.3 of the Phase I Report, as set forth in the format for Phase I Reports included in Section V of this Manual.
- 12. Any deviations from VHDA Environmental Site Assessment Standards or ASTM E 1527-05, or any limitations of the Phase I environmental site assessment, must be described in Section 2.6 of the Phase I Report.
- 13. All data references (including, but not limited to, the following: regulatory database search references; the ASTM standard followed; floodplain maps; wetlands maps; U.S. Topographical maps; soil survey; aerial photographs; telephone interviews with agencies; and fire insurance maps, if available) used to complete the Phase I Report must be listed in Section 9.0 of the Report.
- 14. The Environmental Professional must:
  - a. Field-verify the distance to any facilities identified in any of the standard environmental record sources during the site reconnaissance, and the Environmental Professional must document such verification in Sections 5.4 and 5.6 of the Report.

- b. Visually and/or physically observe adjoining properties and note any physical limitations to all visual inspections.
15. The Phase I Report must also include in Section 10.0 a discussion of the relationship of the purchase price to fair market value of the property, in accordance with Section 6.5 of ASTM E 1527-05. The ASTM 1527-05 standards anticipate that most of the time this assessment of purchase price will be performed by a user (more than likely, the entity that has title to the property or the entity that will take title to the property) and provided to the Environmental Professional. Therefore, this information should be addressed in the Owner Environmental Questionnaire and Disclosure Statement or in a separate valuation statement, as appropriate. If not addressed and provided to the Environmental Professional, the Environmental Professional must address this issue. The user isn't required to disclose the purchase price, but if the purchase price is significantly less than the fair market value, s/he should disclose this to the Environmental Professional and explain why a difference exists. It is VHDA's opinion that even if the fair market value and purchase price are the same, it would be prudent for the prospective purchaser to identify how the fair market value was determined. This standard does not require that a real estate appraisal be obtained in order to ascertain fair market value of the property.
- a. Where the purchase price does not reflect the fair market value of non-contaminated property, the Environmental Professional must identify the potential causes, including environmental causes.
    - (i) Although this item is a designated user responsibility in ASTM E 1527-05, VHDA requires that the Environmental Professional review the information provided by a user. If the Environmental Professional is not provided with information from a user, the Environmental Professional must inquire of the seller, broker, or real estate professional associated with the development as to the fair market value of the property and as to the causes for any differential between the fair market value and the purchase price of the property; unless a substantive response regarding these matters has already been provided by the user(s).
    - (ii) If the Environmental Professional determines that a sales price has not yet been negotiated for the property, that fact should be referenced in Section 10.0 of the report.
  - b. Although this standard does not require that a real estate appraisal be obtained in order to ascertain fair market value of the property, VHDA may, at its sole discretion, require that a real estate appraisal be obtained in order to ascertain the fair market value of the subject property.
  - c. If neither the user, applicant, seller, broker, nor real estate professional can or will disclose to the Environmental Professional whether a differential exists between the purchase price of the subject property and the fair market value of the subject property, the Environmental Professional must assess this as a data gap and discuss it in Section 6.0 of the Report.
16. If a Phase I Report recommends a Phase II Environmental Site Assessment (ASTM E 1903-97) or any other testing, the applicant is strongly encouraged to submit a copy of the final or draft Phase I Report (just text is acceptable), a draft of the proposed Phase II Scope of Work which conforms to all requirements in Section D,

and a Site Map to VHDA. The strict time frame associated with review, could make it impossible for modifications of the Phase II to be completed prior to selection of a development if VHDA determines that the Scope of Work is not adequate.

If the applicant does not submit a draft of the proposed Phase II scope of work and the Site Map to VHDA, or if the Phase II work has already been completed, VHDA may, at its sole discretion, require that the applicant conduct any of the following environmental activities: (i) perform additional testing; (ii) perform remediation and confirmatory testing; (iii) obtain a brownfield's "limitation of liability"; (iv) develop a Noise Attenuation Plan; or (v) develop an O & M Plan with respect to certain known, suspected, or potential environmental hazards which are discovered during the Phase I and/or Phase II reviews. If the required activities cannot be completed within the required time frame, the development will be ineligible for TCAP funds.

VHDA reserves the right upon reviewing the Report for any such Phase II to require that the applicant conduct any of the following environmental activities, at VHDA's sole discretion: (i) perform additional testing; (ii) perform remediation and confirmatory testing; (iii) obtain a brownfield's "limitation of liability"; (iv) obtain a "no listing" letter under HSRA; (v) develop a Noise Attenuation Plan; or (vi) develop an O & M Plan with respect to certain known, suspected, or potential environmental hazards which are discovered during the Phase I and/or Phase II reviews.

All Phase II work must be performed in accordance with the requirements below. The Phase II Scope of Work and reports from any previously performed Phase II investigations must be included in Appendix E of the Phase I Report. For Phase II investigations undertaken due to recognized environmental conditions identified during a Phase I assessment, the final Phase II Report must be submitted to VHDA immediately upon completion.

### **Additional Reporting Required**

In addition to the Phase I Report, which addresses general site contamination, HUD requires a review of the following:

- Air Quality
- Floodplain Management
- Wetland Protection
- Coastal Zone Management & Coastal Barriers Act
- Endangered Species
- Wild and Scenic Rivers
- Farmland Protection (per Farmland Protection Policy Act of 1981)
- Noise Abatement and Control
- Hazardous Facilities
- Airport Clear Zones
- Environmental Justice
- Lead-Based Paint
- Historic Preservation

Where VHDA guidelines are more stringent than the ASTM Standards, the VHDA guidelines are to be considered controlling.

### *Air Quality*

The Clean Air Act (42 U.S.C. 7401 et seq.) prohibits federal assistance to projects that are not in conformance with the State Implementation Plan (SIP). New construction and conversion, which are located in "non-attainment" or "maintenance" areas as determined by the Environmental Protection Agency (EPA) may need to be modified or mitigation measures developed and implemented to conform to the SIP.

The EPA has established National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), and total suspended particulates (TSP). On a countywide basis, EPA classifies each contaminant as either being attainment, non-attainment, or unclassifiable. It is critical that the applicant or Environmental Professional (see Manual for definition) review the SIP and determine whether the site is within a non-attainment area, and, if so, should confer with EPA regarding conformance with Virginia's SIP. The EPA non-attainment designations can be found at <http://www.epa.gov/oar/oagps/greenbk1>.

### *Floodplain Management*

Applicants must determine whether the development is located within a floodplain. "Floodplain" means the Special Flood Hazard Area (SFHA) identified on the flood maps published for the National Flood Insurance Program (NFIP) by the Federal Emergency Management Agency (FEMA). These maps should be referenced when inquiring whether a development is located within a floodplain. Flood maps are generally available for viewing in a community's land planning or building permit office. Applicants must provide the floodplain map number and date of the map.

If a development receiving TCAP is located within a floodplain, compliance is required with the 8-step decision making process of Executive Order 11988, "Floodplain Management", and implementing procedures contained in 24 CFR Part 55. The Executive Order sets floodplain management as a national priority and adds new prominence to the natural and beneficial floodplain functions as well as to the public benefit to be derived from their restoration or preservation. Federal programs are "to avoid direct or indirect support of floodplain development wherever there is a practicable alternative."

Furthermore, if a development does occur within the Floodplain and the development is awarded TCAP funds, the Owner must obtain flood insurance and document as such to VHDA.

The Environmental Professional must review the Federal Emergency Management Agency ("FEMA") National Flood Insurance Maps with a community panel number to determine if any part of the subject property is considered to be located in a 100-year floodplain/floodway.

1. The presence of floodplain/floodway areas on the property must be clearly defined and supported by the appropriate FEMA map(s). A copy of the FEMA map(s) for the subject property must be included in Appendix A of the Report,

*whether or not* there is a 100-year floodplain/floodway identified on the subject property. The boundaries of the proposed site for development must be delineated on the FEMA map. In addition, an Site Map that clearly defines the areas of floodplain/floodway in relation to all site improvements, including buildings, paving, and site amenities must be included. The Plan must clearly show where all development and incidental development lies in relation to the floodplain/floodway.

2. In all circumstances, the applicant must document any mitigation required by applicable laws for impacts to existing floodplains or floodways planned for development.
3. In no event will any development be accepted for funding that will place buildings in a 100 year floodplain/floodway unless the following requirements are met:
  - A. Tax credit rehabilitation developments *may* be eligible for funding where the existing buildings, paving or site amenities are located in the 100-yr floodplain *if* the following is included:
    - a. Verification (note on FEMA map) by the Environmental Professional that the proposed site for redevelopment is on the FEMA floodplain/floodway map included in Appendix A;
    - b. A Site Map that clearly defines the areas of floodplain/floodway; and
    - c. Evidence that the elevation of the lowest existing floor is 12" above the FEMA designated floodplain/floodway elevation in the form of a land survey or other appropriate documentation. Such documentation must clearly demonstrate existing conditions and should include a land survey indicating the location of the existing buildings, paving and site amenities existing floodplain/floodway, elevation of existing floodplain/floodway, elevation of lowest floor level in existing buildings and FEMA elevation of the existing floodplain/floodway.
  - B. TCAP funded new construction *or* rehabilitation developments will be approved *only if* the property will be reclassified out of the 100 year floodplain/floodway for those areas where site improvements will be placed, including buildings, paving, and site amenities, prior to development completion *and* the following documentation showing the reclassification is included:
    - a. A site map that clearly defines the areas of floodplain/ floodway and site improvements;
    - b. All areas of floodplain/floodway must be documented by the FEMA map for the areas in which the site is located, regardless of whether the proposed site for development appears to be located in a floodplain/floodway. The proposed site for development must be located on that map;
    - c. The qualified Environmental Professional or Engineer must include an opinion as to whether or not the proposed development will impact any floodplain or floodway.
    - d. The qualified Environmental Professional or Engineer must document mitigation for impacts to existing floodplains/floodways planned for

development, and include consideration of alternative locations for the development.

- e. A FEMA Conditional Letter of Map Amendment (LOMA) or Letter of Map Revision-Based on Fill (LOMR-F) must be obtained for the property that shows that the property is eligible for reclassification out of the floodplain/floodway area. A final Letter of Map Amendment (LOMA) or Letter of Map Revision-Based on Fill (LOMR-F) from FEMA along with an elevation certificate and all other information to document the reclassification must be provided to VHDA at the completion of the development, or evidence that the property is eligible for flood insurance and that such insurance will be in place if awarded funding from VHDA.
- C. Additional floodplain/floodway requirements for TCAP:
- a. The HUD Environmental Questionnaire must be included in Appendix K of the Report.
  - b. Where construction, including site improvements, and landscaping activities occupy or modify the floodplain/floodway, documentation for TCAP funding must include evidence that the 8-step Floodplain Management process has been followed as mandated by 24 C.F.R. § 55.20 (Executive Order 11988).
  - c. Documentation from the Environmental Professional regarding direct and indirect impacts associated with constructing the development on or near a floodplain/floodway.
  - d. Documentation from the Environmental Professional regarding proposed mitigation.
  - e. Documentation from the Environmental Professional regarding the consideration of alternative locations for the development.
  - f. TCAP-funded developments may require flood insurance. Such insurance must be in the form required by the US Department of Housing and Urban Development.

### *Wetland Protection*

For a listing of designated wetlands, contact the U.S. Fish & Wildlife Services or visit their website at <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.

As a general policy, applicants should avoid developments that either take place in or affect a designated wetland. However, if a designated wetland may be affected, VHDA will require that the applicant comply with the 8-step decision making process of Executive Order 11990, "Protection of Wetlands" (see below).

No development will be accepted for TCAP funds if it will disturb more than one-tenth of an acre of jurisdictional wetlands *or 100 linear feet of stream* on the subject property (or on any adjacent property where disturbing jurisdictional wetlands is necessary to gain access to the subject property). No buildings, pavings, site amenities or other improvements are to be located in any wetlands areas under any conditions. However, if the proposed development will disturb more than one tenth (1/10th) of one acre, VHDA will accept U.S. Army Corps of Engineers (USACE) approval of the proposed

development as evidenced by an approval letter, the USACE approved site plan and engineering drawings and the appropriate USACE permits.

The Environmental Professional must determine if any portion of the subject property is or may be considered jurisdictional wetlands based upon:

1. A review of the U.S. Fish and Wildlife Service National Wetlands Inventory (“NWI”) maps.
2. The site reconnaissance.
3. Any other available relevant resources (including, but not limited to, the USGS topographic map for the subject property).

The presence of jurisdictional wetland areas, including streams, or any potential jurisdictional wetland areas, including streams, on the property must be clearly shown on the Site Map. The Environmental Professional must also provide a jurisdictional wetlands delineation, performed in accordance with all federal and state guidelines, to verify the existence of wetlands and to determine the extent thereof. A copy of the NWI map, USGS topographic map and any necessary wetlands delineation report must be included in Appendix A of the Report.

For all developments, compliance with the federal Clean Water Act and applicable U.S. EPA and USACE regulations, policies and guidance is required. If jurisdictional wetlands will be filled or impacted and the proposed development requires completion of the HUD Environmental Questionnaire, the HUD Environmental Questionnaire must include evidence that the wetland management 8-step process, as set forth below,<sup>1</sup> has been followed. Such documentation should be included in Appendix K of the Report.

Please note that applicants are required to submit a Pre-Construction Notification to the USACOE prior to any work being done on the property even if the development is under the regulatory threshold limits.

#### Wetland Decision Making Process

The decision making process for compliance with this part contains eight steps, including public notices and an examination of practicable alternatives. The steps to be followed in the decision making process are:

- Step 1** Determine whether the proposed action is located in a wetland. If the proposed action would not be conducted in a wetland, then no further compliance with this part is required.
- Step 2** Notify the public at the earliest possible time of a proposal to consider an action in a wetland, and involve the affected and interested public in the decision making process.
  - a. The public notices required by Steps 2 and 7 of this section may be combined with other development notices wherever appropriate.

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<sup>1</sup> See proposed 24 C.F.R. § 55.20 at 55 Fed. Reg. 396, 403 (January 4, 1990).

Notices required under this part must be bilingual if the affected public is largely non-English speaking. In addition, all notices must be published in an appropriate local printed news medium, and must be sent to federal, state, and local public agencies, organizations, and, where not otherwise covered, individuals known to be interested in the proposed action.

- b. A minimum of 15 calendar days shall be allowed for comment(s) on the public notice.
- c. A notice under this step shall state: the name, proposed location and description of the activity; the total number of acres of wetland involved; and the name and phone number to contact for information. The notice shall indicate the hours and the location at which a full description of the proposed action may be reviewed.

**Step 3** Identify and evaluate practicable alternatives to locating the proposed action in a wetland.

- a. The consideration of practicable alternatives to the proposed site or method may include:
- b. Locations outside the wetland,
- c. Alternative methods to serve the identical development objective; and
- d. A determination not to approve any action.
- e. In reviewing practicable alternatives, the applicant shall consider feasible technological alternatives, hazard reduction methods and related mitigation costs, and environmental impacts.

**Step 4** Identify the potential direct and indirect impacts associated with the modification of the wetland.

**Step 5** Where practicable, design or modify the proposed action to minimize the potential adverse impacts within the wetland and to restore and preserve its natural and beneficial values.

**Step 6** Reevaluate the proposed action to determine:

- a. Whether it is still practicable in light of possible adverse impact on the wetland, the extent to which it will aggravate the current hazards to other wetlands, and its potential to disrupt wetland values; and
- b. Whether alternatives preliminarily rejected at Step 3 of this section are practicable in light of the information gained in Steps 4 and 5.

**Step 7** If the reevaluation results in a determination that there is no practicable alternative to locating the proposal in the wetland, publish a final notice that includes:

- a. The reasons why the proposal must be located in the wetland;
- b. A list of the alternatives considered; and
- c. All mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values.

- d. In addition, the public notice procedures of Step 2 shall be followed, and a minimum of seven (7) calendar days for public comment prior to approval of the proposed action shall be provided.

**Step 8** Upon completion of the decision making process in Steps 1 through 7, implement the proposed action. There is a continuing responsibility to ensure that the mitigating measures identified in Step 7 are implemented.

#### *Coastal Zone Management & Coastal Barriers Act*

Only for new construction, conversion, major rehabilitation, and substantial improvement activities does the Coastal Zone Management (CZM) authority apply. Developments that can affect the coastal zone must be carried out in a manner consistent with the approved State coastal zone management program under Sec. 307 of the Coastal Zone Management Act of 1972, as amended.

If a development is located within a coastal zone, documentation from the State CZM agency that the development proposed is consistent with the approved State Coastal Zone Management Program must be provided or the applicant must state that the development is not located within a coastal zone as defined by the State's CZM Program.

#### *Endangered Species*

The environmental review must consider potential impacts of the HUD-assisted project to endangered and threatened species and critical habitats. The review must evaluate potential impacts not only to any listed but also to any proposed endangered or threatened species and critical habitats. This responsibility is cited in environmental procedures at [24 CFR 58.5\(e\)](#) and [24 CFR 50.4 \(e\)](#). The Federal list of endangered and threatened wildlife and plants is published jointly by the Department of Interior (Fish and Wildlife Service) and the Department of Commerce (National Marine Fisheries Service). The list must be examined to determine whether the HUD-assisted project is likely to affect any listed or proposed endangered or threatened species or critical habitats. While there is considerable information on the website, the reviewer is encouraged to consult with Fish and Wildlife Ecological Services Field Offices. The list is available on the [U.S. Fish and Wildlife Service Website](#). Endangered species *generally* does not apply to rehabilitation.

#### **Region 5**

Chief, Division of Endangered Species  
U.S. Fish & Wildlife Service  
300 Westgate Center Drive  
Hadley, Massachusetts 01035-9589

#### *Wild and Scenic Rivers*

The Environmental Professional should consult the National Parks Service to ensure that no designated wild or scenic rivers will be affected.

Water quality is affected by wastewater, which is simply another term for sewage. The terminology is not as important as the fact that pollution from wastewater can harm the environment and become a health hazard. Applicants should consult the National Parks Service (Virginia liaison) to ensure that no designated wild or scenic rivers will be affected. Contact information is as follows:

Rivers, Trails & Conservation Assistance  
National Park Service  
410 Severn Avenue, Suite 109  
Annapolis, MD 21403

**Contact Person:** Wink Hastings (Virginia liaison)  
**e-mail:** whastings@chesapeakebay .net  
**Phone:** (410) 267-5787  
**Fax:** (410) 267-5777

*Farmland Protection (per Farmland Protection Policy Act of 1981)*

New construction development that includes undeveloped land must include a review of Farmland Protection Policy Act to ensure that the development does not include or affect prime or unique farmland or land of federal, statewide or local importance. Water or urbanized land is exempt if the land is already in or committed to urban development. Applicants should consult the local planning office and/or the local National Resources Conservation Services (this could be the local USDA office).

To find your local NRCS office, visit: <http://soildatamart.nrcs.usda.gov/Contacts.aspx>

The current contact is:

USDA - Natural Resources Conservation Service  
Virginia State Office  
1606 Santa Rosa Road, Suite 209  
Richmond, VA 23229  
Attn: Davis Kriz  
(804) 287-1646, phone  
(804) 287-1736, fax

*Noise Abatement and Control*

If the proposed development is located near a major noise source, i.e., civil airports (within 5 miles), military airfields (15 miles), major highways or roads (within 1000 feet), or railroads (within 3000 feet), then the applicant must undertake a Noise Assessment, in accordance with HUD's [Noise Guidebook](#).

The HUD Noise Limitations must be met at 45dB for interior locations and 65dB for exterior locations for all new construction and rehabilitation developments. All sound mitigation costs must be included in the construction development budget. Absent a VHDA waiver, a selected development cannot exceed 75dB of exterior noise. All new

construction and rehabilitation developments must also meet the requirements set forth in the HUD noise regulations, 24 C.F.R Part 51 Subpart B (24 C.F.R § 51.100 *et seq.*).

1. The Environmental Professional must determine if the subject property (or any part thereof as measured from the property line) is within (i) five (5) miles of a civil airport; (ii) fifteen (15) miles of a military airfield; (iii) 1000 feet of a major highway or busy road with greater than 10,000 average daily traffic count; or (iv) 3000 feet of a railroad or rail line. These conclusions and supporting discussion (i.e. the distances between the subject property and the above-listed noise sources and how the Environmental Professional determined these distances) should be included in Section 5.4.22 of the Report and related documentation must be included in Appendix J.
2. If the subject property (or any part thereof as measured from the property line) is within the distances of noise sources discussed in the paragraph above, the Environmental Professional must complete a noise assessment in accordance with the HUD Noise Assessment Guidelines (“NAG”)<sup>2</sup> and 24 C.F.R § 51.100 *et seq.* In addition, the Environmental Professional must provide an opinion on the results of such assessment/study, and the report must contain a complete mitigation plan for remediation of sound levels above the HUD or VHDA Limitations.
3. The noise assessment should use ten (10) year traffic projections for roadway, aircraft and railway noise, include a sufficient number of noise assessment locations (a.k.a. “NALs”) to allow a comprehensive evaluation of the noise environment at a development site, and should include all of the worksheets attached to the NAG in the noise report. Where ten (10) year traffic projections are not available for aircraft or railway noise, the Environmental Professional may use currently-available noise projections, and must note as such in the noise assessment. Where ten (10) year traffic projections are not available for roadway noise, the Environmental Professional should take currently available traffic projections and estimate a 3% per year growth over ten (10) years to calculate the ten (10) year traffic projections, and must note as such in the noise assessment. The results of the noise assessment must be submitted to VHDA as part of the Report as Appendix J thereto. The results of the noise assessment should be discussed in Section 5.4.22 of the Report.
4. For all developments, if the Noise Assessment data indicates that the any portion of the noise environment at the development is greater than the HUD “Acceptable” standard of 65 decibels (dB) but does not exceed the HUD “Unacceptable” standard of 75 dB, a noise attenuation plan completed in accordance with HUD guidelines (including, but not limited to, the NAG) and prepared by a consultant must be submitted with the Report.
5. The noise attenuation plan specifically must demonstrate that noise attenuation measures utilized at the development will reduce exterior and interior noises levels below 65dB and 45dB. The noise attenuation plan must contain sufficient detail to allow VHDA to independently verify that the proposed interior and exterior noise mitigation measures will result in these reduced noise levels. In addition, the

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<sup>2</sup> The Noise Assessment Guidelines are contained within the [HUD Noise Guidebook](#).

attenuation plan must contain an opinion from the architect and/or environmental engineer that the attenuation plan will reduce noise levels to acceptable levels.

If HUD has made an independent determination that the NAG and/or Noise Attenuation Plan is acceptable or that a waiver of HUD requirements has been granted, then documentation from HUD along with the proposed Noise attenuation Plan should also be included in Exhibit J.

6. For all developments, if the Noise Assessment data indicates that any portion of the noise environment at the development is greater than 75 dB (i.e., in the "Unacceptable" zone as defined by 24 C.F.R § 51.103), it is VHDA's general policy that the development site will not be accepted for funding. VHDA will only make exceptions to this policy if the development incorporates noise attenuation that clearly reduce interior and exterior noise levels within acceptable levels or the applicant submits sufficient documentation to allow VHDA to determine that the overriding policy considerations associated with completing the development outweigh the unacceptable noise levels. Public policy considerations may include an overwhelming need for the proposed housing, revitalization efforts, rehabilitation or modernization of existing developments. Placement of buildings and amenities outside noise sensitive zones may also be considered. VHDA will also make an exception if the development has received a HUD waiver.

In cases where interior noise levels exceed 45 dB , the applicant should submit a letter from the Architect of Record that discusses the sound transmission class of the construction materials that are to be used on the development and contains an estimate of the interior noise levels in the interior of the any buildings at the development property after construction is completed.

### *Hazardous Facilities*

#### Explosive & Flammable Hazards

Particular attention should be given to any site proposed that is in the vicinity of hazardous operation involving tanks and facilities that store, handle or process chemicals or petrochemicals of a flammable or explosive nature. HUD regulations establish acceptable separation distances for sites near these facilities. Further detail can be found in HUD Guidebook, [Siting of HUD-Assisted Projects Near Hazardous Facilities](#).

The Environmental Professional must confer with the local authorities and conduct site reviews of a 2,000 foot radius from the site to determine the evidence of such hazards on or near the site, to assure that occupants of proposed sites are not adversely affected by the above hazards.

#### Site Contamination

Particular attention should be given to any site proposed that is located on, or in the general proximity of, such areas as dumps, landfills, industrial sites, abandoned railroads or other locations that may contain hazardous wastes. All properties receiving TCAP must be free of hazardous materials, contamination, toxic chemicals and gases, and

radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

The Environmental Professional must confer with the local planning agency and/or similar agencies to determine the previous uses of the site and other evidence of hazards on or near the site, to assure that occupants of proposed sites are not adversely affected by the above hazards. If any such evidence is found, the applicant must obtain a Phase I (ASTM) report. HUD requires the use of current techniques by qualified professionals to undertake investigations determined necessary. Click this link for more information about [hazardous facilities](#).

### *Airport Clear Zones*

Development must not take place within either civilian or military airport clear zones. HUD policies prevent building homes in areas where airplane crashes are greatest or most likely to occur, which is generally in areas near airport runways.

For each major airport, an Airport Layout Plan has been prepared that has been approved by the Federal Aviation Administration. The Runway Clear Zones at Civil Airports are trapezoidal in shape and have a maximum length of 3,000 feet. These plans delineate the Clear Zones for each runway.

The Department of Defense requires that an Air Installation Compatible Use Zone (AICUZ) be prepared for each military airfield. The AICUZ for each airfield contains a noise contour map. Unlike the clear zones at civil airports, the clear zones on military airfields are rectangular in shape and are usually 7,000 feet in length. In addition to the clear zones at the end of the runways of military airfields, there is also Accident Potential Zones (APZ). The person preparing the Environmental Assessment for a proposed development should be guided by the land uses as outlined in the APZ's and as set forth in the AICUZ for the particular airfield involved. Click here for list of [Airport Hazards Q&A](#).

### *Environmental Justice*

Environmental Justice involves reviewing the disproportional impact on minority or low-income neighborhoods, relative to the community at large, when a site has environmental issues. If no issues are found during the initial review process, Environmental Justice is not applicable. In instances where Environmental Justice applies, then VHDA will coordinate an Environmental Justice review.

### *Lead-Based Paint*

The following lead-based paint assessment activities are required when any current or former structure located on the subject property was constructed before 1978:

1. Where such structures are present on the subject property and are not planned for demolition, lead paint sampling is required of both the interior and exterior of the building using EPA and HUD approved testing methods and procedures *unless* the structure has a valid certificate of compliance under applicable lead-based paint laws. If any lead-based paint is detected, then Phase II soil sampling for total lead conforming to all requirements in Section D is required.

2. Where such structures are present on the subject property and are planned for demolition, soil sampling for total lead is required *unless*:
  - a. No lead paint is discovered upon sampling both the interior and exterior of the building (using EPA and HUD approved testing methods and procedures);  
or
  - b. The structure has a valid certificate of compliance under applicable lead-based paint laws.
3. VHDA reserves the right to require additional testing as a condition of funding if the additional lead in testing determines that unacceptable levels of lead are present in the soil after demolition.
4. Where such structures have been demolished, lead in soil sampling for total lead is required, *unless* waived by VHDA at its sole discretion.
5. VHDA requires conformance to the standards for Phase II investigations even though lead in soil is a non-scope issue, according to the ASTM Standards, and thus is not normally under the purview of a Phase II investigation.
  - a. If the lead in soil sampling has already been completed, VHDA may, at its sole discretion, require additional testing and analysis prior to completing its review.
  - b. VHDA reserves the right upon reviewing the report for any such Phase II to require that an Environmental Professional conduct any of the following environmental activities, at VHDA's sole discretion: (i) perform additional testing; (ii) perform remediation and confirmatory testing; (iii) obtain a brownfield's "limitation of liability"; or (iv) obtain a "no listing" letter under HSRA.
  - b. Any lead-based paint in excess of applicable standards must be inspected, remediated or abated in accordance with all applicable federal, state and local laws and regulations. An O&M Plan is required for any lead-based paint remaining in place and must conform to the O&M Guidance Plan discussed below.

### *Historic Preservation*

#### General Requirements

The Department of Historic Resources (DHR) is Virginia's State Historic Preservation Office (SHPO). Section 106 of the National Historic Preservation Act of 1966, as amended, requires consultation with the SHPO and others who may have knowledge of historic properties in identifying known historic properties which may be affected by a federal undertaking, and in determining the need for further survey efforts to identify previously unrecorded historic properties. This not only pertains to the proposed site, but must also take in consideration any listed property that may be in the general vicinity of the project site. Furthermore, consideration must be given to those properties that might be eligible for listing.

Virginia Department of Historic Resources  
Attention: Project Review  
2801 Kensington Avenue  
Richmond, Virginia 23221  
[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

Documentation should be provided as a part of the scope of work of the Environmental Professional; however, the applicant can directly provide this information to VHDA. Click this link for a list of [key questions](#) and answers from HUD's website. Click here for [Section 106 definitions](#).

Please complete the [Project Review Application](#) for review by the State Historic Preservation Officer (SHPO). The following are minimum requirements for review:

- Cover letter clearly indicating the county and city within which the development is or will be located and a sentence stating that the letter is a "request for consultation regarding the proposed development in accordance with 36 CFR 800." Provide the development name and number (if available) along with the name, address, and telephone number of a contact person. Also indicate the name of the person or entity requesting consultation, if different from the contact person, and the federal or state agency for which review is required, and a detailed development description.
- Detail site location map of the area in which the development is to occur.
- One photo of each structure and/or site (house, building, etc.) to be impacted.
- Information on the age of any structures located on the site.
- Other information related to identifying historic resources within the developments are of potential effect.

The Environmental Professional must provide a professional opinion (see Appendix T requirement) on whether the proposed development may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places (hereinafter "National Register") pursuant to Section 800.13 of the historic preservation regulations, 36 CFR Part 800. 36 CFR Part 800 also implements Section 106 of the National Historic Preservation Act, 16 U.S.C. 470f (hereinafter Section 106").

If there are historic properties involved, and if VHDA and the SHPO agree that there is no adverse effect, the development may proceed as planned. When an effect is considered adverse and if VHDA, the applicant and the SHPO can agree as to the mitigation measures to be taken, a Memorandum of Agreement (MOA) should be prepared.

#### Preservation Professional

If it is determined that the proposed development will have an adverse affect, the applicant or Environmental Professional must employ a qualified professional or contract with a qualified professional(s) (hereinafter "Preservation Professional") who meet the minimum requirements set forth in the *Secretary of Interior's Professional Qualifications Standards* at 36 CFR Part 61 (hereinafter "Professional Qualification") to determine actual effects based on criteria found in the Council's regulations and made one of three determinations, *No historic properties affected, No adverse affect or*

*Adverse affect.* In addition to these minimum requirements, the Preservation Professional must have a minimum of one-year experience in applying the National Register of Historic Places eligibility criteria to buildings, structures and districts when identifying historic properties and in applying the *Secretary of the Interior's Standards for Rehabilitation* to rehabilitation developments and must have demonstrated the successful application of acquired proficiencies in the field of historic preservation preservation by meeting at least one of the following:

1. Demonstrated experience in completing the application forms for the rehabilitation of historic buildings pursuant to the National Park Service's Federal Historic Preservation Tax Credit program; or
2. Demonstrated experience in developing plans for the rehabilitation or restoration of historic buildings that have been implemented; or
3. Have received an award from a local, state, or national organization in recognition for a historic building rehabilitation or restoration development; or
4. Have served on local historic preservation commission, state National Register of Historic Places Review Board, or state or national historic preservation board or committee in capacity of architectural Historian or Architect

applicants must notify VHDA and SHPO in writing once their Preservation Professional has been selected, but prior to initiation of the undertaking. The notification shall include the curriculum vitae of the Preservation Professional(s) qualifications and the address, phone and fax numbers of the applicant's primary points of contact for development activities.

#### Minimum Requirements

1. consult previous surveys of historic properties and/or districts, if any, to identify if the subject property or other properties within the area of potential effects are fifty (50) years old or older and evaluate each for eligibility in the National Register of Historic Places;
2. consult with the owner of the property and record such information (owner's knowledge of the past history, age, alterations, etc.) for use by the Preservation Professional in making a decision concerning the National Register-eligibility of subject properties; and
3. maintain a file on the identification and National Register evaluation of each subject property and on other properties within the area of potential effects. The file shall include the following data used in the determination:
  - a. Interior and exterior building and neighborhood context photographs per Section 106 keyed to a location map;
  - b. Information on whether the property and/or district meets the criteria for the National Register inclusion; and
  - c. Information indicating whether the property is contributing or non- contributing as part of a National Register-eligible historic district, or if it is individually eligible for the National Register.

## Determinations

If the Preservation Professional needs assistance in determining the eligibility of a property or district for the National Register, or the Preservation Professional and the applicant disagree on the eligibility of a property or district, the Preservation Professional shall forward the documentation gathered to the SHPO for a thirty (30) day determination of eligibility. If necessary, the applicant may obtain a formal determination of eligibility from the Keeper of the National Register in accordance with 36 CFR Section 800.4(c).

If the Preservation Professional determines that the subject property does not meet the National Register criteria, then the Preservation Professional shall submit a letter to the applicant indicating that there is No Historic Property. Applicant shall include a copy of the letter in Appendix "T".

If the Preservation Professional determines that the property is a contributing structure which is either listed in the National Register or is eligible for listing in the National Register (or a lot within such a listed or eligible district), prior to the initiation of any work, the applicant shall request the Preservation Professional's review of the proposed work. Within thirty (30) days from the receipt of a request from the applicant, the Preservation Professional shall review work write-ups or plans and specifications submitted for all proposed activities for their effects to historic properties as follows:

The applicant in consultation with the Preservation Professional shall develop preliminary design documents for SHPO review and approval prior to the initiation of construction activities. The applicant shall take into account the comments and recommendations made by the Preservation Professional for both rehabilitation and new construction activities.

The applicant shall notify SHPO when ground-disturbing activities, to include excavation for footing and foundations, installation of utilities such as sewer, water, storm drains, electrical, gas, leach lines, and septic tanks, are proposed as part of an undertaking. In addition, if previously unidentified historic properties, including archaeological sites, are discovered during development rehabilitation or construction, the applicant shall immediately stop all development activities. The applicant shall immediately contact the Preservation Professional for consultation.

## Public Notification Regarding Activities

The applicant, in consultation with the Preservation Professional shall determine the public interest in planned rehabilitation or new constructions activities which may affect potentially historic properties or districts by informing the public about potentially historic properties while meeting its public participation requirements as set forth in the regulations for the TCAP program and in complying with 24 CFR Part 58. The applicant shall notify the Preservation Professional of the public interest in any development activities if planned activities are determined to trigger the requirements of Section 106.. The applicant shall record all comments received at any public meetings, in writing, or by phone, which records shall become part of the Historic Preservation Environmental Review Record.

## Photographs

1. Photographs documenting the current state of the property must be included in Appendix B of the Report. The photographs must show the inside of any structures and the grounds of the property (including adjacent sites).
2. The photographs should be clearly dated and labeled with a description of the view presented.

**Other Hazards and Considerations.** The Environmental Professional must also consider and discuss in the Report other hazards or considerations, including, but not limited to, the presence of urea formaldehyde in existing structures, existing septic tanks or wells on the property, or the absence of the availability of a municipal water or sewer system to the property, including any moratorium on new hookups.

The Environmental Professional must provide documentation that the municipal water and sewer services are available to the property. A record of a phone conversation between the applicant and the relevant authority, a record of a conversation between the Environmental Professional and the relevant authority, or a copy of a letter sent to the applicant by the relevant authority are all acceptable forms of documentation.

## Required Documentation for Reports

The following documents must be included in the Report:

1. **Certification of Environmental Professional.** The Certification must be signed by the appropriate parties, and included immediately after the cover page of the report.
2. **The Environmental Certification (New Construction) or Determination (Rehabs).** This document must be completed, signed by the Environmental Professional, and included in Appendix P. These forms can be found at the end of the HUD Environmental Questionnaire.
3. **Owner Environmental Questionnaire & Disclosure Statement**
  - a. This document must be completed and signed by the owner of record of the proposed development site, and must be signed and notarized in the spaces provided.
  - b. For all information to the document which is not or cannot be provided by the owner of record, the Environmental Professional must seek out the information and address the information in the Report.
  - c. The signed and notarized Owner Environmental Questionnaire & Disclosure Statement must then be forwarded to the Environmental Professional to be reviewed and included in Appendix L of the Report.

4. **Phase I Documentation: HUD Environmental Questionnaire.** This document must be prepared by the Environmental Professional and attached to the Report. All entries must be fully documented and explained in the Report.
5. **HUD Environmental Questionnaire.** This document must be included in the Report for all developments requesting TCAP funding and/or listing HUD funding sources, including but not limited to PBRA.
6. **Proof of Insurance.** Proof of insurance in specified amounts listing VHDA as an additional insured on the general commercial liability policy and giving the proper cancellation period.
7. **Comprehensive Historical Review.** This can be discussed in the Report, with documentation included in Appendices C and D of the Report.
8. **Letters of Reference.** The environmental consulting firm which performed the Phase I (and Phase II, if required) must include in Appendix O of the Report, three letters of reference attesting to the firm's prior work. At least one of the references should be from a real estate firm or law firm that used the environmental consulting firm to support a real property transaction.
9. **The Department of Historic Resources Project Review Application.** This document must be prepared by the Environmental Professional and a copy must be attached to the Report for all deals that have properties that may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places. All entries must be fully documented and (if applicable) explained in the Report.

#### **Requirements for Phase II Investigations and for Any Other Testing**

The purpose of a Phase II or any other testing (collectively referred to in this Section as "Phase II" work) is typically to determine the presence or absence of recognized environmental condition(s), suspected environmental concern(s), or non-scope issue(s), or to quantify the extent of an actual or suspected release or potential release identified in the Report. The Phase II may require additional information gathering and/or physical sampling, if appropriate (ASTM E 1903-97).

1. If the Report documents a recognized environmental condition, suspected environmental concern or non-scope issue, a Phase II Environmental Site Investigation is required in all but the most exceptional circumstances. The Phase II Scope of Services must be included in Appendix E of the Report.

2. The Phase II need only extend to those investigations necessary to resolve the recognized environmental conditions, suspected environmental concerns, or non-scope issues, or to quantify the extent of any release identified in the Report. If clear and convincing evidence exists that a property is *not* impacted by a potential recognized environmental condition, suspected environmental concern, or non-scope issue, then VHDA at its sole discretion may waive the requirement for a Phase II for that issue.
3. The Phase II must include thorough documentation of the methods utilized to conduct sampling and research. Good management practices and regulatory standards must be followed at all times, especially where physical sampling and laboratory analysis is involved. Groundwater sampling activities must comply with current U.S. Environmental Protection Agency and Virginia Department of Environmental Quality standards and policies.

If a Phase II Environmental Site Investigation or other further testing is recommended, the Phase II Scope of Services must be included in Appendix E of the Report.

The proposed Phase II scope of work must:

- List the recognized environmental conditions, suspected environmental concerns, and/or non-scope issues.
  - Specify the locations and depth of any proposed monitoring wells, soil borings, and/or samples and include a Site Map showing the same.
  - Specify the number of samples and depth of samples.
  - Specify the test methods and analytical methodology which will be used.
  - Include a cost assessment for all Phase II investigation and reporting activities.
1. The Phase II Report must be performed under the supervision of, reviewed, signed, and certified by an Environmental Professional, as evidenced by an Environmental Certification (VHDA form). If the Environmental Professional supervising and signing the signature page in the Phase II Report is not the same as the Environmental Professional who signed the Report for the property, the qualifications of such personnel should be described in the Phase II Report.
  2. The Phase II Report must summarize in a table and/or figure format all soil and/or groundwater analytical data, including sample depth, from the current environmental site assessment and any previous environmental site assessments. This summary must also include all applicable state and federal notification and/or cleanup standards.
  3. The Environmental Professional must utilize a photo-ionization detector ("PID"), or other appropriate field organic vapor screening instrument, to analyze the likely presence of volatile organic compounds in any soil borings or samples taken during the performance of any Phase II or any other soil testing event and must discuss the results of the PID analysis in the Phase II Report.
  4. The Phase II Report must include an estimate of costs for any necessary environmental remediation. This cost estimate must be included in the

development cost estimates and contain both the *total* estimated costs and the estimated costs for *each* separate activity.

5. The Phase II Report must be clearly dated on the cover and not less than one hundred eighty (180) days old at the time of Application.
  - a. Appropriate documentation (e.g., records review data or research, photographs, interview notes, any analytical results, etc.) that supports the findings and opinions in the Phase II Report must be included in the appendices to the Report.
  - b. The Environmental Professional must thoroughly explain all investigations, analytical data, test results, findings, and conclusions in the Phase II Report. The Phase II Report must also include the Environmental Professional's interpretations and clear recommendations.
  - c. For any groundwater testing for metals, turbidity measurements must be performed in the field. If turbidity is greater than 5 Nephelometric Turbidity Units ("NTUs"), both filtered and non-filtered analysis must be run.
  - d. The Phase II Report must contain a copy of any soil boring logs and must show the depth to groundwater, except where borings were not installed to groundwater.

The Environmental Professional must require any laboratory submitting analytical results relating to a development to provide the following stipulation in the report:

I stipulate that **[name of laboratory]** is accredited by **[name of accrediting agency]** and has been assigned **[accreditation number]**. The accreditation relates to **[media - e.g., air, drinking water, hazardous waste]**. The effective date of accreditation is **[date]** and expires on **[date]**. I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody.

Signed by: \_\_\_\_\_

Date: \_\_\_\_\_

### **Professional Opinion and Related Requirements for Phase I and Phase II Reports**

The Environmental Professional must provide a professional opinion as to:

1. The existence or non-existence of any recognized environmental conditions, suspected environmental concerns, and/or non-scope issues.
2. Whether the property has known contamination or is at risk for contamination from any recognized environmental conditions, suspected environmental concerns and/or non-scope issues.
3. Whether further environmental assessment activities are necessary.
4. Whether "all appropriate inquiry," as described in Section 3.2.6 of ASTM E 1527-05, was conducted.

5. Whether the review of pertinent documents or conditions addressed in each subsection in Sections 4.0 and 5.0 of the Report indicates or does not indicate the presence of any recognized environmental conditions.

In any Phase II Report, the Environmental Professional must provide a professional opinion as to:

1. Whether the property is contaminated.
2. Whether any contamination discovered is from an on-site or off-site recognized environmental condition, suspected environmental concern, and/or non-scope issue.
  - a. The Environmental Professional must identify and comment upon the significance of all data gaps that affect the Environmental Professional's ability to identify any recognized environmental conditions, suspected environmental concerns, and/or non-scope issues in Section 6.0 of the Report.
  - b. Reports must list the following parties as "users" and state that they may use and rely upon it: the entity that has title to the property or the entity that will take title to the property, development partners, equity partners for the development, and any other party which would be defined as a "user" within the meaning of Section 3.2.93 of ASTM. This list should be included in Section 2.6 of the Report and each of the named users must be interviewed for the "user interview" portion of the Report, Section 4.3.
  - c. The Report(s) and the Environmental Certification must state that VHDA may rely on the Report. This statement should be included in Section 2.6 of the Report.

In any Phase I or Phase II where contamination from an on-site or off-site source is known or has been determined, the Environmental Professional must provide a professional opinion as to:

1. Whether any regulatory reporting or cleanup obligations are triggered.
2. Whether any onsite or offsite contamination at or in close proximity to the subject property poses a hazard to human health and safety.
3. Whether the subject property is likely to be listed on the Hazardous Site Inventory ("HSI") or otherwise become part of an HSI site based on any documented soil and/or groundwater contamination.
4. Whether the proposed development would exacerbate any existing contamination, upon reviewing the site plans.

### **Restrictions/Limitations**

The Phase I and/or Phase II Report(s) providing the Environmental Professional's professional opinion may *not* contain:

1. Any language eliminating or disclaiming the liability of the Environmental Professional or their firm.
2. Any language eliminating or modifying the Environmental Professional's duties, obligations, or statement of work.
3. The report may *not* state that it is exclusively for the use of the party who hired the Environmental Professional or that there is no accountability, obligation or liability to any third party.

### **Insurance Requirements**

1. The Environmental Professional must carry insurance which provides full coverage for all work performed. The Environmental Professional must maintain insurance policies covering all of the following types of insurance in the greater of either the following amounts of coverage or the amounts of coverage that the Environmental Professional typically carries:
  - a. Commercial General Liability insurance, total combined single limits of \$1,000,000 per occurrence and \$2,000,000 in the aggregate;
  - b. Professional Errors and Omissions insurance with limits of \$2,000,000 each claim and \$2,000,000 in the aggregate; and
  - c. Pollution Liability insurance with limits of \$2,000,000 per occurrence and \$2,000,000 in the aggregate, with coverage extended to include third party liability for death, bodily injury, diminution of value of property and property damage.
2. VHDA must be named as an additional insured on the commercial general liability insurance. In addition, VHDA must be listed as a certificate holder on all policies. The insurance should be documented on an Acord 25 certificate. Such insurance, including any deductible or self-insured retention, shall by its terms be primary with respect to any insurance carried by the applicant or any parent, subsidiary, or affiliated entities. For such policies written on a claims-made basis, the Environmental Professional must maintain such coverage for a period of at least three (3) years following the completion of the final Phase I and/or Phase II Reports.
3. The Environmental Professional must promptly notify VHDA of any changes made to the insurance policies required by this Section.
4. Upon written request of VHDA, the Environmental Professional must promptly deliver copies of policies evidencing the insurance coverages required to VHDA.

5. All required insurance shall be underwritten by an insurance carrier acceptable to VHDA and with an AM Best rating of not less than A-. Such insurance policies are to provide that the insurer must give VHDA at least thirty (30) days prior written notice of cancellation/termination/material change, and to provide that no action by the insured shall invalidate or diminish the insurance or bond(s) provided to VHDA.
6. Proof of insurance must be included in Appendix N to the Report.
7. For ease of processing, the development name should be included on the insurance certificate.

### **HUD Environmental Clearance & Publication Requirements**

VHDA must ensure that the environmental review process is satisfied before TCAP funds are committed to specific developments. Where applicable, when initial awards of TCAP funds are announced, VHDA will publish notices of its intent to allocate TCAP funds in the local newspaper where the proposed development is located. After comments, if any, have been received, HUD will review the comments to determine if there has been a finding. Once that process is complete and there has been no finding, VHDA will seek HUD's approval of its commitment of TCAP funds to the proposed development.

In order to ensure that the environmental review process is not challenged, or to avoid non-compliance with HUD's environmental procedures. Owners of proposed developments must refrain from undertaking activities that could have an adverse environmental impact prior to the receipt of an environmental clearance letter from VHDA removing the stipulated conditions. Such activities include: acquiring, rehabilitating, converting, leasing, repairing, or constructing property. As a result, an applicant can not commit or expend HUD or non-federal funds until the environmental review process has been completed and the Owner and/or Developer has received a clearance letter from VHDA permitting development activities. For detailed procedures for the complying with this requirement, please see VHDA's Environmental Review Process document.

### **VHDA Evaluation and Conclusions**

VHDA conducts an independent review of the environmental materials submitted. Any environmental concerns or issues identified (e.g., soil or groundwater contamination) in the Phase I or Phase II review must be addressed in accordance with these Standards. In addition, VHDA may conduct an independent review of publicly available information regarding the environmental condition of a property. VHDA may also require additional assessment of a property, including but not limited to, file review and/or Phase II sampling.

Environmental issues with the potential to impact the subject property, which are not satisfactorily identified by the Environmental Professional and are later identified by VHDA can be grounds for not receiving TCAP funds. Issues that cannot be resolved during the review period, or which present or may present a risk to the health or safety

of persons or to the environment, and/or that present an unacceptable degree of owner liability will be grounds for rejection. Such decisions will be made at VHDA's sole discretion. Increasingly, applicable law requires environmental remediation and repair work to be performed and documented according to strict regulatory standards. If proper documentation does not exist to substantiate remedial work performed prior to the commencement of the Phase I, then limited confirmatory testing or a Phase II may be required.

Upon review of the completed Phase I and/or Phase II reports, VHDA, at its sole discretion, may impose additional assessments and/or environmental actions including, but not limited to, (i) performing remediation and confirmatory testing; (ii) obtaining a brownfield's "limitation of liability"; (iii) obtaining a "no listing" letter under HSRA; (iv) developing a Noise Attenuation Plan; or (v) developing an Operations and Maintenance Plan ("O&M Plan"), as a requirement for, or condition of, a funding commitment or tax credit allocation. Properties with recognized environmental conditions, potential environmental concerns, or non-scope issues that are not satisfactorily addressed by Phase II testing are unlikely to pass the threshold review or be approved for funding or tax credits. No development expenditures may be incurred or any TCAP funds drawn down for any activity (other than exempt activities) prior to receipt of an environmental clearance letter releasing the conditions/funds. This may be obtained by completing an environmental review of each development as described in the Environmental Manual.

VHDA reserves the right to refuse to fund or to withdraw funding from a development in which environmental hazards are discovered subsequent to VHDA's completion of its threshold review. However, at VHDA's sole discretion, applicants may be given the opportunity (i) perform additional testing; (ii) perform remediation and confirmatory testing; (iii) obtain a brown field's "limitation of liability"; (iv) obtain a "no listing" letter under HSRA; (v) develop a Noise Attenuation Plan; or (vi) develop an O & M Plan with respect to certain known, suspected, or potential environmental hazards which are discovered during the Phase I and/or Phase II reviews. Option (vi) may be exercised when HUD and/or EPA regulations allow the environmental hazard to remain at the site.

### **Operations and Maintenance Plans**

Some properties may have conditions that are currently acceptable but must be maintained or confirmed throughout the compliance or affordability period or the life of the loan whichever is greater with an ongoing O&M Plan. Examples may include the presence of ACM, lead-based paint, or underground storage tanks. The following documentation will be necessary for properties that require ongoing operations and maintenance:

1. A written O&M Plan must be submitted to VHDA by the developer/owner *immediately* upon the completion of any remedial actions required. An Environmental Professional must prepare and certify that the provisions, if carried out with diligence, are sufficient to maintain the property in accordance with a O & M Guidance Plan by an Environmental Professional, sound business practices, and any other applicable regulatory standards. The developer/owner must execute a written agreement with VHDA which recognizes the developer/owner's obligation to carry out the O & M Plan including, if applicable, preparing

documentation necessary to demonstrate compliance. At its discretion, VHDA may require additional O & M Plan provisions.

2. The developer/owner must send to VHDA written certification on an annual basis which certifies the property is being maintained in accordance with any applicable O & M Plans, environmental laws and regulations. The developer/owner must make an on-site inspection and inquiry before making the certification. The scope of the certification should include both the buildings and grounds, and cover the activities of the developer/owner, tenants, sub-lessees, their agents and any other third parties. These certifications must specifically address the ongoing effectiveness and adequacy of all current remedial and maintenance actions. Such certifications must be included as part of the annual Physical Inspection Report submitted to VHDA.
3. In addition, an inspection and confirmation must be made immediately following the occurrence of events which might reasonably be expected to impact the environmental condition of the property or the efficacy of prescribed remedial or maintenance actions. Such events would include, but are not limited to fire, flood, building construction or rehabilitation, spills or leaks of hazardous wastes or substances, unusual or intense use of property facilities, and/or significant changes in custodial or management personnel.
4. If the developer/owner is unable to confirm that the property is being maintained in accordance with any applicable O & M Plans, environmental laws, and regulations, the developer/owner must take any and all remedial and maintenance actions necessary to correct these conditions. The developer/owner must promptly confirm in writing to VHDA the environmental status of the property immediately following implementation of any remedial actions.
5. The developer/owner must report to VHDA and the appropriate local, state, or federal authority all known violations of applicable environmental statutes and state laws on the property. In addition, the developer/owner must take all necessary actions to ensure that all violations are promptly corrected and that the property is brought back to and maintained in full compliance with appropriate environmental statutes and good management practices.

## Required Format for Report

### COVER PAGE

### ENVIRONMENTAL CERTIFICATION

### TABLE OF CONTENTS

#### 1.0 EXECUTIVE SUMMARY

- 1.1 Location and Legal Description of the Property
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- 2.2 Procedures (including a detailed Scope of Services)
- 2.3 Significant Assumptions
- 2.4 Qualifications of Personnel/Documentation of qualifications as an "Environmental Professional"
- 2.5 Assessment of Specialized Knowledge or Experience of User and/or "Environmental Professional"
- 2.6 Limitations and Exceptions
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  - 3.1.2. Current Uses of Adjoining Properties
  - 3.1.3. Description of Structures, Roads, and Other Improvements (including exterior and interior observations)
- 3.2. Hydrogeology
  - 3.2.1. Geologic Setting
  - 3.2.2. Surface Drainage
  - 3.2.3. Groundwater
- 3.3. Wetlands
- 3.4. Floodplain/Floodway
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1. USFWS National Wetlands Inventory Map
2. FEMA Map
3. Site Map
4. USGS Topographic Map
5. Virginia Radon Zones Map

### **APPENDIX B -- PHOTOGRAPHS (including date and description of view presented)**

### **APPENDIX C -- HISTORICAL RESEARCH DOCUMENTATION**

1. Historic aerial maps
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### **APPENDIX D -- DOCUMENTATION FROM TITLE COMPANY/TITLE PROFESSIONAL**

1. Recorded land title records
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### **APPENDIX E -- CURRENT PHASE II SCOPE OF WORK (if applicable) AND ANY PREVIOUS ENVIRONMENTAL REPORTS**

### **APPENDIX F -- REGULATORY SEARCH INFORMATION**

### **APPENDIX G -- RECORD OF COMMUNICATIONS AND INTERVIEWS**

1. User/applicant interview
2. (abandoned properties) Interview of owners and occupants of neighboring properties
3. documentation of attempts to interview:
  - a. local fire department;
  - b. state or local health department or environmental agency;
  - c. local agency responsible for issuance of building permits;
  - d. local agency responsible for issuance of groundwater

### **APPENDIX H -- AUTHOR CREDENTIALS, DOCUMENTATION OF QUALIFICATION AS AN "ENVIRONMENTAL PROFESSIONAL"**

### **APPENDIX I -- OTHER PREVIOUS ENVIRONMENTAL REPORTS (if available)**

### **APPENDIX J -- NOISE ASSESSMENT DOCUMENTATION**

1. Noise assessment report
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1. HUD Environmental Questionnaire
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### **APPENDIX V-- OPERATION AND MAINTENANCE MANUAL (if applicable)**

### **APPENDIX W-- OTHER (if applicable)**

## Common Errors or Omissions

This checklist reflects items commonly omitted or problematic with the Phase I Environmental Site Assessments. Since this checklist is not intended to be a comprehensive checklist of all items required for a VHDA approved Phase I Environmental Site Assessment, please read the Environmental Guide thoroughly before submitting the Report to VHDA.

### *Common Omissions Include:*

- Report Date (not included on the cover).
- Environmental Certification (VHDA form).
- Signature of the Environmental Professional on the Environmental Certification form.
- Signature of the applicant on the Environmental Certification form.
- Environmental Professional's resume, qualifications, letters of reference.
- Proof of insurance in specified amounts on appropriate certification forms; VHDA listed on the certificate as a certificate holder and as an additional insured for the commercial general liability policy.
- Owner Environmental Questionnaire and Disclosure Statement.
- Property Log.
- Incomplete HUD Environmental Questionnaire.
- Professional Opinion, conclusions, and recommendations on all matters observed on the subject site and or surrounding sites in the Executive Summary and in Sections 4.0 and 5.0 of the Report.
- Date of Site Reconnaissance.
- Comprehensive historical review in accordance with ASTM requirements and VHDA standards.
- Interviews – names and titles of interviewees; documentation of all interviews and attempts to interview in the Appendices.
- Geological investigation.
- Floodplain investigation and map.
- Wetlands investigation, including wetlands maps.
- Site map indicating groundwater flow.
- Discussion of each property identified in the environmental regulatory database(s) and rationale(s) for determining whether or not each property presents a recognized environmental condition to the subject property.
- Photographs: dates.
- Noise Assessment Report and professional opinion (including NAG when noise levels exceed HUD limitations).
- Radon site classification for new construction; Radon testing in buildings for rehabilitation.
- Survey of mold conditions in buildings for rehabilitation.
- Lead Based Paint sampling.

- Map locating all sites identified in Regulatory Review, including, but not limited to the following:

FINDS	Federal CERCLIS/CERCLIS NFRAP
RCRA TSD	RCRA Generators
NPL	ERNS
TRI	UST
State LUST	HSRA (a.k.a. non-HSI)
HSI	Spills List
SWS	RCRA CORRACTS

*Common Errors Include:*

- Report Date (outdated).
- VHDA Format not followed.
- Noise Assessment Report and professional opinion (not including 10 year traffic projections).
- Use of Disclaimer language inconsistent with requirements of these Environmental Guidelines.
- Site reconnaissance observations not sufficiently discussed.
- Photographs: observations and potential environmental impacts not sufficiently discussed.

## Glossary of Terms and Acronyms

HSRA	Hazardous Site Response Act
HSI	Hazardous Site Inventory
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [42 U.S.C. Section 9601 <u>et seq.</u> ], as amended by the Superfund Amendment and Reauthorization Act of 1986
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CERCLIS NFRAP	CERCLIS—no further remedial action planned
EPCRA	Emergency Planning and Community Right to Know Act of 1986 [43 U.S.C. Section 11001 <u>et seq.</u> ]
ERNS	Emergency Response Notification System [40 C.F.R. Parts 300, 370, and 372]
FINDS	Facility Index System [40 C.F.R. Section 6901 <u>et seq.</u> ]
LUST	Leaking Underground Storage Tank Act
NPL	National Priorities List [42 U.S.C. Section 9605]
RCRA	Solid Waste Disposal Act as Amended by Resource Conservation and Recovery Act [42 U.S.C. Section 6901 <u>et seq.</u> ]
RCRA CORRACTS	RCRA corrective action database
RCRIS	Resource Conservation and Recovery Information System
SARA	Superfund Amendments and Reauthorization Act of 1986
TRI	Toxics Release Inventory