NCLEAD Childhood Lead Environmental Follow-up Business Rules

For Elevated Blood Lead Level (EBL) and
Confirmed Lead Poisoning (CLP) cases

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**Referral**

NCLEAD may refer an EBL or CLP case to the Environmental Health (EH) Program via a workflow or a case may be referred to EH by the state NC Childhood Lead Poisoning Prevention Program or other health care provider.

**Environmental follow-up documentation**

In the *Administrative* question package for the *CHILD*:

- Enter the date the case was referred to Environmental Health (EH) in the field titled *Date referred to EH*.
- Enter the *Date referral acknowledged by EH*.

*Note:* The *Date referred to EH* must be entered *first* to see this field.

- For EBL cases, enter the date the environmental investigation was offered in the field *Date offered environmental investigation*. If the investigation was offered more than once, click *Add New* to enter additional date(s) the investigation was offered.

*Note:* Entry of the “Date offered environmental investigation” is not necessary for CLP cases because investigation is mandatory.
For **EBL** cases, per G.S. § 130A-131.9 (please see G.S. below)

From North Carolina General Statute § 130A-131.9. Investigation to identify lead poisoning hazards.

(a1) When the Department learns of an elevated blood lead level, the Department shall, upon informed consent, investigate the residential housing unit where the child or pregnant woman with the elevated blood level resides. When consent to investigate is denied, the child or pregnant woman with the elevated blood lead level cannot be located, or the child's parent or guardian fails to respond, the Department shall document the denial of consent, inability to locate, or failure to respond.

There should be documentation* of at least one of the following:

1. Investigation*
   - Enter Date offered environmental investigation in the Administrative question package for the CHILD.
   - Enter the investigation date (and any other site visit dates) in the Environmental Site Activity question package of the PROPERTY.

**Note:** A PROPERTY event (i.e., address record) should be created if one does not already exist. See "PROPERTY EVENTS" section page 10.
Once a date is entered, and the type of investigation is chosen, additional fields appear for you to record the details of the investigation.

**Note:** If there is more than one site visit, click Add New to enter additional site visit dates. **DO NOT** overwrite an existing date box or all the related information will be lost.

- At least one site visit should serve as an *investigation* for the child and the **CHILD** event should be linked to the site visit(s) in the *Environmental Site Activity* question package of the PROPERTY.
• To link the CHILD to the PROPERTY event:
  o Click the magnifying glass next to First Child’s Name under “This activity serves as an investigation for the following case(s)” to search for the child.
  o Search for the child in the search window that appears, using * to conduct a wildcard search. Once found, click “Select.”

The CHILD event should now be hyperlinked to the PROPERTY event.
• Click on the dropdown box to choose the Address Type and whether it was the child’s residence at time of confirmation
To link other children related to the visit, for which the activity does NOT serve as an investigation, repeat the process above, by clicking on the magnifying glass next to First Case (if any) under “(Optional) If user wants to link case(s) for whom THIS DOES NOT SERVE AS AN INVESTIGATION or case IS NOT A CONFIRMED CASE, link below:" to search for the child.

- It is OPTIONAL for you to link children under this section. Children linked here will NOT come out of the Children with EBLLs in need of environmental follow-up Workflow.

2. Denial of consent*
   Enter the date the environmental investigation was offered in the Administrative question package for the CHILD. If the investigation was offered more than once click Add New to enter additional date(s) the investigation was offered. If there is a refusal, enter the refusal date(s) in the field titled Date investigation refused.

   Note: To see the refusal field, you must first enter the Date offered environmental investigation.

3. Inability to locate*
   Document (in the Notes box of the Administrative question package for the CHILD) at least two good faith attempts to locate the parent/guardian by contacting the health care provider and/or social services (e.g. Medicaid, WIC) for updated address/contact information.

4. Failure to respond*
   Enter the dates the investigation was offered (click Add New to enter additional dates the investigation was offered). This should include at least one site visit to the residence to reach out to the family to offer an investigation. A property event should be created (if one does not already exist) and the site visit should be documented in the Environmental Site Activity question package of the PROPERTY. If the parent/guardian still fails to respond, use the Failure to respond date field to enter the second date the investigation was offered.
Screenshot of **Administrative** question package for the **CHILD**:

1. Date referred to EH
2. Date referral acknowledged by EH
3. Date offered environmental investigation
4. Date investigation refused
5. EH / Clinical person making phone contact
6. Person made contact with (first & last name - relationship)
7. Unable to locate patient (2nd attempt date)
8. Failure to respond (2nd attempt date)

(Click to enter additional dates investigation offered)

(Click to enter additional dates investigation offered)

2. Denial of consent
3. Inability to locate
4. Failure to respond

(The **Notes** box and date questions for items 2-4 are in the **Administrative** question package of the **CHILD** event and can also be accessed by using the **Environmental Follow-up Wizard**.)

User must request removal from EBL workflow after documenting an Investigation, Denial of consent, Inability to locate, or Failure to respond.

Select “Yes” to the field ‘Refer case for removal from EBL workflow’ under the “Environmental Follow-Up Administrative Notes” section in the **Administrative** question package of the **CHILD** event. It will go to your regional EHS for review.
CLP CASES

For CLP cases, per G.S. § 130A-131.9 (please see G.S. below)

From North Carolina General Statute § 130A-131.9. Investigation to identify lead poisoning hazards.

(a) When the Department learns of confirmed lead poisoning, the Department shall conduct an investigation to identify the lead poisoning hazards to children and pregnant women. The Department shall investigate the residential housing unit where the child or pregnant woman with confirmed lead poisoning resides. The Department shall also investigate the supplemental addresses of the child or pregnant woman who has confirmed lead poisoning.

For CLP cases, there should be documentation* of an investigation at the 1.) primary residence and 2.) all addresses meeting the definition of a Supplemental address (if any).

*The primary address PROPERTY event should be linked to the CHILD. (A) site visit(s) should be entered in the Environmental Site Activity question package of this PROPERTY Event. At least one site visit should serve as an investigation for the child and the CHILD event should be linked to the(se) site visit(s).

*All supplemental address PROPERTY events should be linked to the CHILD. (A) site visit(s) should be entered in the Environmental Site Activity question package of each supplemental address PROPERTY event. Each supplemental address PROPERTY event should have at least one site visit that serves as an investigation for the child and the CHILD event should be linked to the(se) site visit(s).

Please list addresses that meet the definition of a Supplemental address in the Supplemental addresses notes box under the investigation of the primary residence in the PROPERTY Event. If there are NO addresses that meet the definition of a Supplemental address, please note this in the Supplemental addresses notes box.

Note: Data entry of the supplemental risk questions is optional. Form 3460 should be attached to the CHILD event - including interviews at different addresses.
To link the **CHILD** to the **PROPERTY** event:

- Click the magnifying glass next to **First Case (if any)** under “This activity serves as an investigation for the following case(s)” to search for the child.

- Search for the child in the search window that appears, using * to conduct a wildcard search. Once found, click “Select.”

The **CHILD** event should now be hyperlinked to the **PROPERTY** event.

- Click on the dropdown box to choose the **Address Type** and whether it was the child’s **residence at time of confirmation**

- To link other children related to the visit, for which the activity does NOT serve as an investigation, repeat the process above, by clicking on the magnifying glass next to **First Case (if any)** under “(Optional) If user wants to link case(s) for whom THIS DOES NOT SERVE AS AN INVESTIGATION or case IS NOT A CONFIRMED CASE, link below:” to search for the child.
It is OPTIONAL for you to link children under this section. Children linked here will NOT come out of the **CLP Cases in need of environmental follow-up: Complete Check List** Workflow.

To move the CLP child out of the workflow **“CLP Cases in need of environmental follow-up: Complete Check List”** once all Primary and Supplemental addresses have been investigated for the CLP case:

- Complete the section titled **Environmental follow-up checklist for CLP child** in the **Administrative** question package for the **CHILD** and refer the case to your Regional Environmental Health Specialist for removal from the workflow.

*Blank Environmental follow-up checklist for CLP child*

*Completed Environmental follow-up checklist for CLP child*
NOTE: Some options you see above only appear once items are checked off. For example: The option to “Refer to Regional Environmental Health Specialist for removal from workflow” only appears once “Environmental follow-up completed” has been marked “yes.”

PROPERTY EVENTS

CREATING A PROPERTY EVENT IF ONE DOES NOT ALREADY EXIST

- Search for the primary or supplemental addresses by highlighting and copying the address listed in the “Basic Information” section of the CHILD event. Click the magnifying glass to open the search.
• Search for the address in the search window that appears, using * to conduct a wildcard search. Since no PROPERTY event for this address exists, no results are found. You must create a PROPERTY event for it by clicking Create New.

• In the window that opens, choose “Property” as the Event Type. Search for the address again by clicking Select Site and entering the address in the appropriate fields.
• Once found, click **Select** to auto-populate the Site Information. Click **Save**.

• If site is *not* found, manually enter the address of the site in the Site Information section. Click **Save**.

You will be taken to the main dashboard page for the **PROPERTY** event.

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**Environmental samples**
The one highest test result for each sample type below should be entered. Click on the Lab Results tab of the PROPERTY event to enter environmental sample results.

- Dust (highest for each type below)
  - Window trough
  - Window sill
  - Floor
- Paint
- Soil
- Water

Important note: An Order Number must be entered or additional environmental sample results may be overwritten. If you do not know the Order Number, please enter the sample collection date.

For inorganic chemistry results from the State Lab the first part (ES051916), is the Order Number. The second part (0117001, 0117002, and 0117003) is the Lab Sample Number.

ES051916-0117001
ES051916-0117002
ES051916-0117003

Please see examples showing entry of environmental sample analysis results below.
Water Sample Lab Results: Choose “Water Sample” from the dropdown box labeled Lab Results at the top. At a minimum, please enter a value for all highlighted fields.

Choose “Lead Wat-mCnc || Lead” as the **Test Description**.

To add additional water sample results, click **Add**

To choose the lab and ordering facility, click the magnifying glass, enter search terms, and click **Search**. Once the right lab or ordering facility has been located, click **Select** to auto-populate the appropriate fields.

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<table>
<thead>
<tr>
<th>Lab Results</th>
<th>Water Sample</th>
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<tbody>
<tr>
<td>Lab Sample Number*</td>
<td>Collection Date*</td>
</tr>
<tr>
<td>WS01916-0917001</td>
<td>05/19/2016</td>
</tr>
<tr>
<td>System Name</td>
<td>Sample Type</td>
</tr>
<tr>
<td>Treated water</td>
<td>Kitchen</td>
</tr>
<tr>
<td>Source of Water</td>
<td>Collector Name</td>
</tr>
<tr>
<td>Community/Municipal</td>
<td>Debbie EH Specialist</td>
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<tr>
<td>Treatment Type</td>
<td>Report Status</td>
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<tr>
<td></td>
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<table>
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<tr>
<th>Tests</th>
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<th>Test Local Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Wat-mCnc</td>
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<td>Lead</td>
</tr>
<tr>
<td></td>
<td>&lt;0.005</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Tests</th>
<th>Test Description</th>
<th>Test Local Description</th>
</tr>
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<tbody>
<tr>
<td>Lead Wat-mCnc</td>
<td></td>
<td>Lead</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mg/L</td>
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<table>
<thead>
<tr>
<th>Lab Facility</th>
<th>NC State Laboratory</th>
<th>306 N Wilmington St, PO Box 29947, Raleigh, NC 27611</th>
<th>(919) 733-3637</th>
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<tbody>
<tr>
<td>Lab Facility (Other)</td>
<td>If lab facility cannot be found using magnifying glass above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ordering Facility</th>
<th>Alleghany County Environmental Health</th>
<th>157 Health Services Rd, Sparta, NC 28675</th>
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<tbody>
<tr>
<td>Ordering Facility (Other)</td>
<td>If ordering facility cannot be found using magnifying glass above</td>
<td></td>
</tr>
<tr>
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<tr>
<td>Ordering Facility ID Number</td>
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<td></td>
</tr>
</tbody>
</table>

Click magnifying glass to search for facilities.
Environmental Sample Lab Results: Choose “Environmental Sample” from the dropdown box labeled Lab Results at the top. At a minimum, please enter a value for all highlighted fields as shown in the screenshot below.
XRF Readings

- The one highest XRF reading for paint should be entered. Click on the **Event Data** tab of the **PROPERTY** event to enter XRF results.

**Note:** Entry of information under the XRF Machine and Calibration Information sections are **optional**.
All site visits should be documented in the Environmental Site Activity question package of the PROPERTY event including clearance, consultation, annual monitoring site visits and the like. This includes investigations and related site visits for child occupied and proposed child occupied facilities – even if not related to an elevated blood lead level.

The Remediation question package must be completed for all PROPERTY Events that have had an investigation.

- When a property is remediated all clearance and monitoring site visits should be documented in the Environmental Site Activity question package of the PROPERTY event.

- For remediation methods abandonment and maintenance standard:
  - The PROPERTY event should be set up with reminder dates for monitoring.

Note: To set up reminder dates, open the Environmental Site Activity question package of the PROPERTY event and scroll to the bottom of the page.
Monitoring site visits, additional clearance visits and the like should be entered in the *Environmental Site Activity* question package.

### Documentation of Lead poisoning hazards

#### Property Information Question Package

- **Lead poisoning hazards** related to lead-based paint or otherwise related to a primary or supplemental address should be documented in the *Property Information* question package under the **PROPERTY** event.

- If **no lead poisoning hazards were found** during this investigation, document that by clicking on the radio button for “No Hazards Found” and type in the date of the investigation.

- If **any lead poisoning hazards were found** during this investigation, click on the radio button for “Hazards were found” and then click the box to check off the hazards listed that were found during the investigation.

  ![Property Information Question Package](image)

  *For Hazards not related to the specific property, please also record the hazards in the Child Event(s) Question Package - Non-Property Hazards*

  *Hazards identified at the address*
• For other lead poisoning hazards (besides paint, miniblinds, soil, dust and water), please check the box for “Other Hazard” and specify the hazard in the text box in the Property Information question package under the PROPERTY event.

• For lead poisoning hazards NOT directly related to the primary or supplemental address (e.g. pottery, traditional medicines, jewelry and the like), these hazards should ALSO be documented in the Non-Property Hazards question package under the CHILD event.

  o Enter potential lead poisoning hazards from notes or conversations about an environmental history under Possible non-property lead sources
  o Once potential lead poisoning hazards have been confirmed through lab testing or XRF readings from an investigation, enter them under Definite non-property lead sources
Follow-up documentation Question Package

The Follow-up Documentation question package should be used to document additional information related to the case.

- Use the CHILD event follow-up documentation question package for information related to the child (Example: Child plays with fishing weights).
- Use the PROPERTY event follow-up documentation question package for information related to the PROPERTY (Example: On 12/05/2014 conducted a phone consultation with property owner regarding remediation).

Note: Please take care to use the appropriate event type for documentation notes.

  o Enter the date of the note. Additional fields will appear.
  o Enter note details.
  o Make sure to include your name in the “Notes documented by (select NCLEAD User)” section so we know who authored the note. You can either type your username or use the magnifying glass to search.
Attachments

Attachments related to the CHILD such as Form 3651 and 3460 should be attached to the CHILD event.

Attachments related to investigation of the primary and supplemental addresses should be attached to the PROPERTY event such as the Investigation report, Environmental sample analysis results and the like.
ANNUAL MONITORING FOR MAINTENANCE STANDARD

Use NCLEAD to record all Annual Monitoring and/or Clearance site visits in the Environmental Site Activity Question Package of the PROPERTY event.

For Activity = “Annual Monitoring”, OR Activity = “Clearance”, Remediation Method = “Maintenance Standard” :

If the user chooses ‘YES’ for "Hazards indicated based on environmental lab results?" a field named "Date Property Failed Monitoring" opens up.

- **Date Property Failed Monitoring** is the date the lab samples were collected. You will not be able to enter this date until after the results are received showing a hazard.
If the user chooses ‘NO’ for "Hazards indicated based on environmental lab results?" a field named "Date Property Passed Monitoring" opens up.

- **Date Property Passed Monitoring** is the date the lab samples were collected. You will not be able to enter this date until after the results are received showing no hazard.
PREGNANT WOMEN (PRENATAL CASES)

Note: General Statute investigation and remediation requirements apply to pregnant women as well as children who have elevated blood lead levels greater than or equal to 5 micrograms per deciliter (see below)

From North Carolina General Statute § 130A-131.9. Investigation to identify lead poisoning hazards

(b) The Department shall also conduct an investigation when it reasonably suspects that a lead poisoning hazard to children or pregnant women exists in a residential housing unit or child-occupied facility occupied, regularly visited, or attended by a child less than six years of age or a pregnant woman.

For pregnant EBL cases:

(a1) When the Department learns of an elevated blood lead level, the Department shall, upon informed consent, investigate the residential housing unit where the child or pregnant woman with the elevated blood level resides. When consent to investigate is denied, the child or pregnant woman with the elevated blood lead level cannot be located, or the child's parent or guardian fails to respond, the Department shall document the denial of consent, inability to locate, or failure to respond.

For pregnant CLP cases:

(a) When the Department learns of confirmed lead poisoning, the Department shall conduct an investigation to identify the lead poisoning hazards to children and pregnant women. The Department shall investigate the residential housing unit where the child or pregnant woman with confirmed lead poisoning resides. The Department shall also investigate the supplemental addresses of the child or pregnant woman who has confirmed lead poisoning.

From North Carolina General Statute § 130A-131.9C. Abatement and Remediation

(a) Upon determination that a child less than six years of age or a pregnant woman has a confirmed lead poisoning of 10 micrograms per deciliter or greater and that child or pregnant woman resides in a residential housing unit containing lead poisoning hazards, the Department shall require remediation of the lead poisoning hazards. The Department shall also require remediation of the lead poisoning hazards
identified at the supplemental addresses of a child less than six years of age or a pregnant woman with a confirmed lead poisoning of 10 micrograms per deciliter or greater.

Pregnant EBL cases

(➔Refer to full instructions/screenshots for child EBL cases beginning on page 3)

For EBL cases, there should be documentation* of an investigation at the 1.) primary residence, denial of consent to investigate, inability to locate the case, or failure to respond once contact has been made.

1. Investigation*
   a. Enter Date offered environmental investigation in the Administrative question package for the PREGNANT WOMAN.
   b. Enter the investigation date (and any other site visit dates) in the Environmental Site Activity question package of the PROPERTY.

2. Denial of consent*
   Enter the date the environmental investigation was offered in the Administrative question package for the PREGNANT WOMAN. If the investigation was offered more than once click Add New to enter additional date(s) the investigation was offered. If there is a refusal, enter the refusal date(s) in the field titled Date investigation refused.

   Note: To see the refusal field, you must first enter the Date offered environmental investigation.

3. Inability to locate*
   Document (in the Notes box of the Administrative question package for the PREGNANT WOMAN) at least two good faith attempts to locate the parent/guardian by contacting the health care provider and/or social services (e.g. Medicaid, WIC) for updated address/contact information.

4. Failure to respond*
   Enter the dates the investigation was offered (click Add New to enter additional dates the investigation was offered). This should include at least one site visit to the residence to reach out to the family to offer an investigation. A property event should be created (if one does not already exist) and the site visit should be documented in the Environmental Site Activity question package of the PROPERTY. If the woman still fails to respond, use the Failure to respond date field to enter the second date the investigation was offered.
Pregnant CLP cases

(➔Refer to full instructions/screenshots for child CLP cases beginning on page 8)

For CLP cases, there should be documentation* of an investigation at the 1.) primary residence and 2.) all addresses meeting the definition of a Supplemental address (if any).

*The primary address PROPERTY event should be linked to the PREGNANT WOMAN. (A) site visit(s) should be entered in the Environmental Site Activity question package of this PROPERTY Event. At least one site visit should serve as an investigation for the pregnant woman and the PREGNANT WOMAN event should be linked to the(se) site visit(s).

*All supplemental address PROPERTY events should be linked to the PREGNANT WOMAN. (A) site visit(s) should be entered in the Environmental Site Activity question package of each supplemental address PROPERTY event. Each supplemental address PROPERTY event should have at least one site visit that serves as an investigation for the pregnant woman and the PREGNANT WOMAN event should be linked to the(se) site visit(s).

Please list addresses that meet the definition of a Supplemental address in the Supplemental addresses notes box under the investigation of the primary residence in the PROPERTY Event. If there are NO addresses that meet the definition of a Supplemental address, please note this in the Supplemental addresses notes box.

Note:
- Data entry of the supplemental risk questions is optional.
- Form 3460 should be attached to the PREGNANT WOMAN event - including interviews at different addresses.
- Attach Lead and Pregnancy Risk Questionnaire DHHS Form 4116 (English/Spanish) to the PREGNANT WOMAN event
- Attach Prenatal Referral to the PREGNANT WOMAN event

Policy Note (6/23/20): As long as the investigation has been started before the baby has been born, then the investigation can be completed after the birth if the woman has the baby in the meantime.
- Covid-19 changes that limit time at the house means that the environmental investigation starts with a phone interview. This phone interview counts as the start of the investigation and should be recorded in NCLEAD.

Periodically check the following workflows (under heading 6. Environmental Health) for prenatal cases that need follow-up:
a. CLP Prenatal Cases in need of environmental follow-up: Complete Check List
b. EBL Prenatal Cases in need of environmental follow-up