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## DEPARTMENT OF HEALTH

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### **REQUIREMENTS FOR SOIL MITIGATION PLANS SUBMITTED TO ORANGE COUNTY HEALTH DEPARTMENT**

**DECEMBER 2013** (revised)

1. The "Soil Mitigation Plan" must be shown on a dedicated sheet of the plan set and include the following:
  - a. A map showing:
    - i. The subdivision or portion of it in the orchard.
    - ii. The houses, driveways, sewage disposal systems, wells, bury pits, etc.
    - iii. The areas to be mitigated (at least 50' around each house and any areas to be used for outside activities).
    - iv. Soil locations
  - b. A soil test result chart with the date of testing. Identification numbers, sample depths and levels of each analyte.
  - c. A table of maximum acceptable analyte levels.

Example:

#### **POST – MITIGATION ACCEPTABLE ANALYTE LEVELS**

<u>Analyte</u>	<u>Maximum Acceptable Analyte Level After Mitigation</u>
Arsenic	20 ppm
Lead	400 ppm
DDT	6 ppm
DDD	6 ppm
DDE	6 ppm

1. Continued

d. Description of the mitigation procedure.

The following is an example of one acceptable method of mitigating orchard soils.

### **SOIL MITIGATION PROCEDURE**

- i. Soil remediation shall be performed on lots\_\_\_\_\_.
- ii. For each lot proposed for remediation, remove 4 inches of topsoil from with the house footprint and the driveway areas, and stockpile the topsoil on the subject lot for future use.
- iii. Upon completion of the residence, the sewage disposal system and other lot improvements, the builder shall spread the stockpiled topsoil within the limits indicated on the Typical Soil Remediation Detail.
- iv. The capping topsoil shall be tested as required for possible contamination.
- v. Place 6 inches of non-contaminated topsoil to serve as a cap over the re-deposited contaminated soil and throughout the area indicated on the typical Soil Remediation Detail.
- vi. The 6 inches of capping topsoil shall be measured after compaction to its natural density.
- vii. "It is recommended that any additional areas to be used for outdoor recreation also be mitigated as described above."

1. Continued

e. Notes.

Example:

**SOIL MITIGATION NOTES**

1. The mitigation measures indicated on this drawing are a result of a report entitled \_\_\_\_\_, prepared by \_\_\_\_\_, dated \_\_\_\_\_, and submitted to the Orange County Department of Health.
  
2. (Applicant) hereby acknowledges that the subject property was once part of a lawfully operated apple orchard and, as such, exposed to the application of pesticides associated with the normal maintenance of an apple orchard and that the Orange County Department of Health in approving the plans for the subdivision of the lands of which this property forms a part has required as a condition that approval a soil management plan designed to eliminate any significant threats to human health that might exist. The occupants of any home constructed on the property described herein are advised to familiarize themselves with the details of the soil management plan which are set forth on the approved and filed subdivision plans.”  
  
The above covenant shall be added by the attorney to the deed of each lot requiring soil mitigation.
  
3. The analytes shown in the table on this page have accumulated as a result of orchard operations over many years. Unless properly mitigated, the analytes will tend to remain in the upper layers of the soil where they are accessible to children, gardeners, pets, etc.
  
4. The soil must be tested after mitigation. Testing at a depth of one inch and six inches at four widely spaced locations is recommended and must show analyte levels below those shown in the table. The test results must be reviewed and accepted by the Code Enforcement Officer.
  
5. If testing shows analyte levels exceeding the acceptable maximum the mitigation procedure must be repeated.

1. e. Continued
    6. Soil mitigation, in accordance with this plan must be completed prior to occupancy.
    7. Mitigation of the soil is required only on the lots indicated.
  - f. Typical Lot Detail showing the area(s) to be mitigated.
  - g. A Legend.
2. The following note, or equal, must appear on every sheet of the plan set.

"This subdivision was once part of an orchard and soil mitigation, as described on sheet \_\_\_\_\_ of this plan set, is required prior to issuance of a certificate of occupancy."

**\*The examples shown are taken from plans approved by the Orange County Health Department and are intended to be general guidance only.**