

New Agricultural Land Acquisition Due Diligence Check List

Section 1 Property Identity, and Known & Foreseen Encumbrances

1. Obtain sufficient mapping of site
 - a. County map
 - b. Township plat map
 - c. USGS 7-minute quadrangle map with topography (available on DVD) (overlaps with Phase 1 ESA)
 - d. USDA Natural Resource Conservation Service soil maps (overlaps with Phase 1 ESA)
 - i. USDA Natural Resource Conservation Service – County Soil Survey (book) or
 - ii. On-line description of soils
 - e. Copy of Highly Erodible Land (HEL) conservation aerials
 - f. Tile maps
 - i. County tile maps
 - ii. Owner's tile maps
 - g. Wetland Mapping (overlaps with Phase 1 ESA)
 - i. County wetland maps
 - ii. National Resource Conservation Service wetland maps
 - iii. National Wetland Inventory maps
 - h. Official stamped survey
2. Obtain sufficient aerial location mapping
 - a. Historical aerials (overlaps with Phase 1 ESA)
 - b. Agricultural Stabilization Conservation Services Aerial Photographs
 - c. National Resource Conservation Service wetland maps
3. Obtain Applicable Program Documents
 - a. Conservation Reserve Program Docs (where available)
 - b. Agricultural Stabilization Conservation Services Form 476
4. Obtain all available leases and the latest lease termination notice
5. Copy of mineral rights leases if applicable
6. Perform a title search to identify:
 - a. Debt liens
 - b. Environmental liens
 - c. Easements granted
7. Property Tax records with improvements listings
8. List on-site verification of improvements
9. Review water rights documents if applicable
10. Review drainage easements if any
 - a. Review drainage district assessments where applicable
 - b. Review title docs for any indication of drainage easements

Section 2 Phase 1 Environmental Site Assessment

The Phase 1 ESA inquiry includes the following standard activities:

1. Inquiries made of the user for the report that include the following:
 - a. Knowledge of environmental clean-up liens recorded for the subject property
 - b. Specialized knowledge or experience regarding environmental conditions (ECs) on the part of the user
 - c. Evaluation of the purchase price to the fair market value of the property if the property were not contaminated.
 - d. Commonly known or reasonably ascertainable information regarding ECs at the subject property.
2. Interviews with past and present owners, operators and occupants.
3. Reviews of historical sources of information.
4. Searches for recorded environmental clean-up liens.
5. Reviews of Federal State Tribal and local governmental records for evidence of ECs including but not limited to:
 - a. Reported or threatened releases at the subject site.
 - b. Past site assessment reports for the subject site
 - c. Landfill and other disposal unit records within 0.5 miles
 - d. Storage tank records and permits on subject site
 - e. Registered underground storage tanks (USTs) on adjoining properties
 - f. Hazardous waste handler and generator records for the subject site
 - g. National Priorities (NPL) records within 1.0 mile
 - h. NPL Delisted Site records 0.5 miles
 - i. Immediate Removals List within 1.0 mile
 - j. CERCLIS records for subject site and within 0.5 miles
 - k. CERCLIS NFRAP sites within 0.5 miles.
 - l. RCRA Generators list for subject site and adjoining properties
 - m. RCRA CORRACTS sites within 1.0 mile
 - n. RCRA non-CORRACTS TSD facilities within 0.5 miles
 - o. Registries of institutional/engineering controls for property and adjoining sites
 - p. State Response Action Program (SRAPL) 1.0 mile
 - q. State Site Remediation Program (SRP) within 0.5 miles
 - r. State Leaking Underground Storage Tank (LUST) database within 0.5 mile
 - s. Envirofacts Data Warehouse / Facility Index within 1.0 mile
 - t. ECHO (Environmental Compliance History Online) within 1.0 mile
 - u. TRIS (Toxic Inventory System) within 1.0 mile
 - v. EPCRA /ERNS /IEMA (Emergency Response Notification System) on site
 - w. Solid Waste Permit Activities
6. Visual Inspection of the facility and adjoining properties

7. Discerning commonly known or reasonably ascertainable information regarding ECs at the subject property, and the ability to detect ECs at the subject site with appropriate investigation.

8. Comments on the degree of obviousness of ECs and the ability to detect the contamination by appropriate investigation.

9. Scope of Work Not Specifically Addressed under CERCLA AAI

The Phase 1 ESA should also considers hazardous components of building materials, when structures are present, that do not come under the purview of CERCLA unless degraded to the point that they may be considered released or that continued lack of proper maintenance constitutes an imminent or material threat of a release of these components. The most common components of this type are:

- a. Asbestos
- b. Lead in paint
- c. Lead in window blinds
- d. Lead in water

These components are largely confined to structures.

10. Concerns never addressed under CERCLA:

There are two human health concerns that are not included under CERCLA. They are:

- a. Radon
- b. Amplified microbiological infestations (fungal or bacterial).

Last, this inquiry addresses ecological concerns that might impinge on the intended use or marketability of the property. These include but are not limited to the presence of:

- c. Wetlands
- d. Endangered or threatened species
- e. Limitations or restrictions regarding access or use pursuant to special or protected resources on properties ecologically connected to the subject site.

Section 3: Productivity Analysis

1. Examine the local area for availability of talented tenant farmers
2. Obtain 5-year minimum yield history – 10 year history if available
 - a. The records of the individual farmer are the most critical documents.
 - i. Pre-dried yield should be corrected for post dry yield.
 - ii. Post dried yield (grain elevator receipts) should be recalculated to pre-dried yield for all grains and beans.
 - b. Government records also help elucidate the yield question:
 - i. The FSA has yield information on nearly all land that is subject to subsidy. This information goes back at least 30 years in most locations. See [www.fsa.usda.gov/\[state\]](http://www.fsa.usda.gov/[state]) for any state in the U.S.

- ii. The USGS SCS or USDA NRCS has yield information on all land, based on soil type. This information is quite specific and gives information on the quantity of fertilizer required as well as the minimum and maximum expected yields.
- 3. Obtain a minimum 5-year history of Herbicide/Pesticide/Fertilizer use, This is obtained from the farmer.
- 4. Obtain soil analysis from the past 5 years. Each farmer performs this task, however fertilizer companies have been proactive in evaluating the fertility of all land in given areas and they may be contacted to obtain the base soil analyses.
- 5. Perform current soil analysis – include:
 - a. Cationic exchange capacity
 - b. Friability test such as standard sieve test
 - c. Current fertility with recommended fertilizer type and application rates for various potential crops.
 - d. Standard solum analysis:
 - i. Depth to bottom of A horizon (if possible)
 - ii. Depth to bottom of B horizon (if possible)
- 6. Determine soil type from previous data and verify against USGS SCS or USDA NRCS records.
 - a. Determine if accurate, what the expected net yield of the land is.
- 7. Create a table of the yield results versus expected results and:
 - a. Use Chi Square or similar analysis (one-way or factorial ANOVA if possible) to determine if the yield results are consistent with expected results.
 - b. Calculate average ratio of actual results to expected results. (We are seeking at minimum a 1 .0 to 1.1 result)
- 8. Determine cost to produce HSY from financial records for property
- 9. Create a management prediction for OSY – Include the following costs and considerations:
 - a. Addition for organic matter to the soil
 - b. Crop rotation potential and need
 - c. Maximize use of natural fertilizers when possible
 - d. Use of synthetic fertilizers as necessary to achieve minimum satisfactory yield(MSY)
 - e. Minimize erosion
 - i. Diking
 - ii. Soil dragging
 - iii. Spring vs. autumn tilling
 - iv. Stubble height
 - v. Row contours

- f. Integrated pest management
- g. Examine alternative crop possibilities - rate the potential crops as:
 - i. immediate change to new crop is possible
 - ii. 3 year or less change to new crop possible
 - iii. greater than 3 year change to new crop possible.
- h. Examine transportation conditions
 - i. rate the road conditions
 - ii. rate the distance to market point
 - iii. rate the local fuel costs
- i. Examine groundwater usage versus expected requirements and potential need for desalination
- j. Examine the need for drainage improvement – especially from deferred maintenance.
- k. Environmental remediation
 - i. Environmental land use restrictions
- l. Administrative corrections to factor
 - i. Tax issues including back taxes
 - ii. Easement corrections
 - iii. Back debt running with the land
 - iv. Land use restrictions
- 10. Calculate OSY-HSY ratio (We are seeking a 1 .05 to 1.2 – or better – result)
- 11. Calculate the Net Annual Loss/Gain in Productivity (NAL/GiP) using ARIMA or similar multi-variate, time-series analysis pertinent to the data. This is best done with 10 or more (preferably 30) years of analysis.
- 12. Using the data gathered above: Is the profitable operation of the land for the specified plan period possible?

Assuming there are no unresolvable factors in Sections 1 and 2, the following quick rating can be calculated for screening purposes:

Agricultural Land Productivity Quick Rating

Rate each item as indicated with the following numbers unless otherwise instructed:

0 = Unacceptable; 1 = Acceptable; 2 = Exceptional

Rating Category	Sub-category/Task	Explanation	Rating
Availability of talented tenant farmers		This a subjective evaluation based on conversation with local farmers. None = 0 Some excess talent available = 1 Many farmers available = 2	
On NRCS list of Prime Agricultural Land		No = 1 Yes = 2	
Land Capability Rating	Ranking of expected yield for two best cash crops	This crop specific and must changed for the land in question. <i>e.g</i> If corn and soybeans: corn + 3*soybean yield in bu/A <200 = 0 200 – 250 = 1 >250 = 2	
	Land Capability Class	> Class 3 = 0 Class 3 = 1 Class 1 and 2 = 2	
Soil Analysis	Cationic Exchange Capacity (from actual soil tests when possible)	<25 cmoles ⁺ kg ⁻¹ = 0 25 to 50 cmoles ⁺ kg ⁻¹ = 1 50+ cmoles ⁺ kg ⁻¹ = 2	
	NRCS Soil Rating	Fill out NRCS Soil Health Card Template http://soils.usda.gov/sqi/assessment/files/sq_assessment_cp.pdf end of document Low = 0; Medium = 1; High =2	
HNY/ENY Ratio	10-yr. Historic Yield vs USDA Expected	Ratio < 1.3 = 0 Ratio: = 1.3 – 1.6 = 1 Ratio: > 1.6 = 2	
Net Average Gain or Loss in Productivity	Use ten year history or greater. Subtract the expected yearly yield from actual yield. Average the results. Divide by the sum of the actual yields. See example below	The result is usually a loss but better farming techniques keep the loss at a minimum. Too great a gain may mean the land is being worn out. If loss or gain is greater than 0.03 rate: = 0 If loss or gain is greater than 0.02 rate: = 1 If loss or gain is greater than 0.01 rate: = 2	
AVERAGE			0

EXAMPLE

NAL/GiP:

	Actual Yield (bu/A)	Expected Yield	Difference
	161	191	-30
	203	193	10
	184	193	-9
	210	193	17
	191	195	-4
	186	195	-9
	183	198	-15
	189	198	-9
	178	198	-20
	<u>202</u>	200	2
Sum	188.7	Average	-6.7
		Average ÷ Sum	-0.036

Interpretation:

1. 6 of the 8 categories must be entered for the rating to be valid.
2. The rating divided by 2 is a percentile ranking.
3. If the rating of the land is:
 - 1.5 or greater the land is worth prime consideration.
 - Land rating less than 1 is not worth considering.
 - Between these values, additional information and analysis are required.