

Maintaining Viable Agriculture at the Urban Edge By the Use of Properly Designed Buffers

by

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Maintaining Viable Agriculture at the Urban Edge



Viewpoints of Farmers and Residents occupying land at the Urban Service Area (USA)*

Farmers:

Restraints on normal agricultural practices such as spraying, mowing, cultivating.

Liability for trespassers.

Theft, vandalism, litter.

Damage from pets.

Exotic pests -- for example, the Medfly.

Urban traffic creating problems for tractors and farm machinery on local roads.

Residents/Urbanites:

Pesticide use, particularly the problem of **drift**.

Nighttime activities involving lights and **noise**.

Odor, particularly from animals, manure, compost fertilizers and smoke.

Flies, mosquitoes, and other pests.

Tractors and farm machinery on local roads.

Dust and smoke.

Both groups site general economic or environmental concerns arising from proximity. In addition, uncertainty or unpredictability of future land use at the expanding edge can be a disadvantage to both farmers and urbanites.

*Source- Maintaining Viable Agriculture at the Urban Edge, R. Coppock and M. Kreith ed., Agricultural Issues Center, Univ. Calif. April, 1997.

Two Ways That Can Help Farmers and Non-Farmers Live Together as Neighbors

1. Technological developments and farming practices that help individual farmers co-exist with their urban neighbors.
2. Land use planning, community design and other public sector techniques that help preserve farmland and maintain a viable agriculture, particularly near urbanized areas.

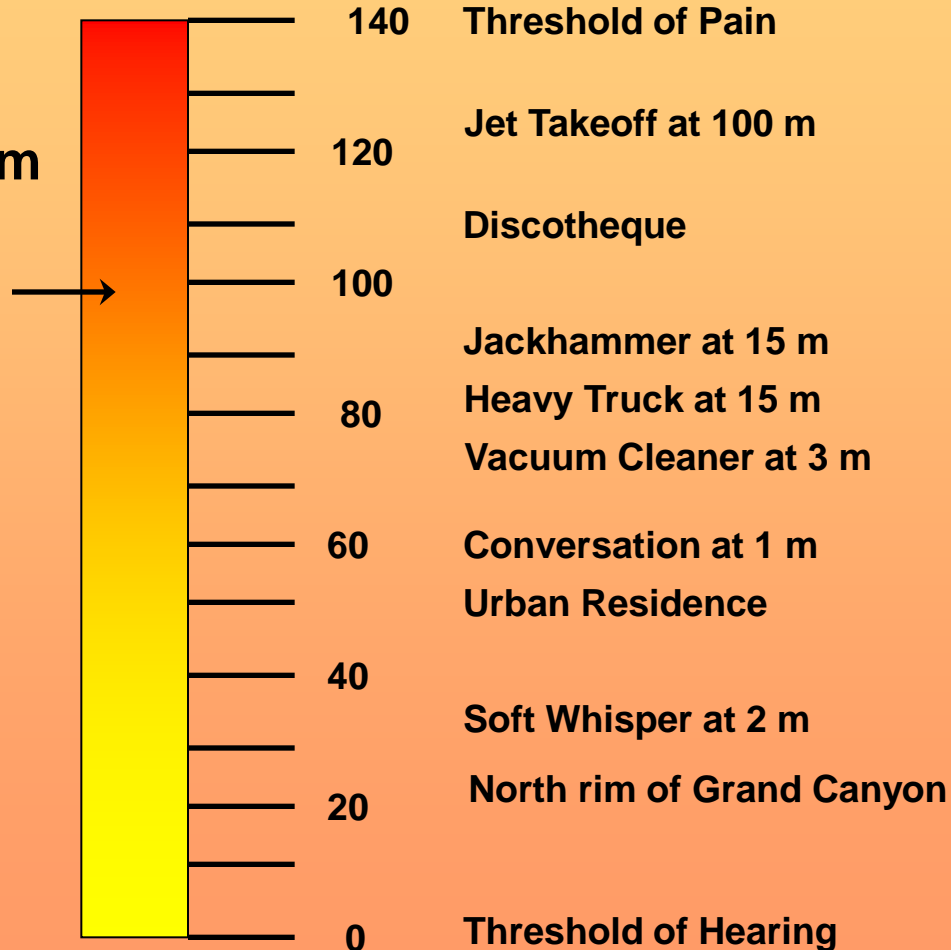


Noise



Typical Sound Levels (expressed as decibels)

Sound emanating from
90 Hp Tractor and
Air Blast Sprayer
at 40 ft (98.4 db*)



Increasing
Sound

*The 98.4 decibel value was determined by Fla. Dept. of Health using Fla. Research Center's Spray Equip.

Odor



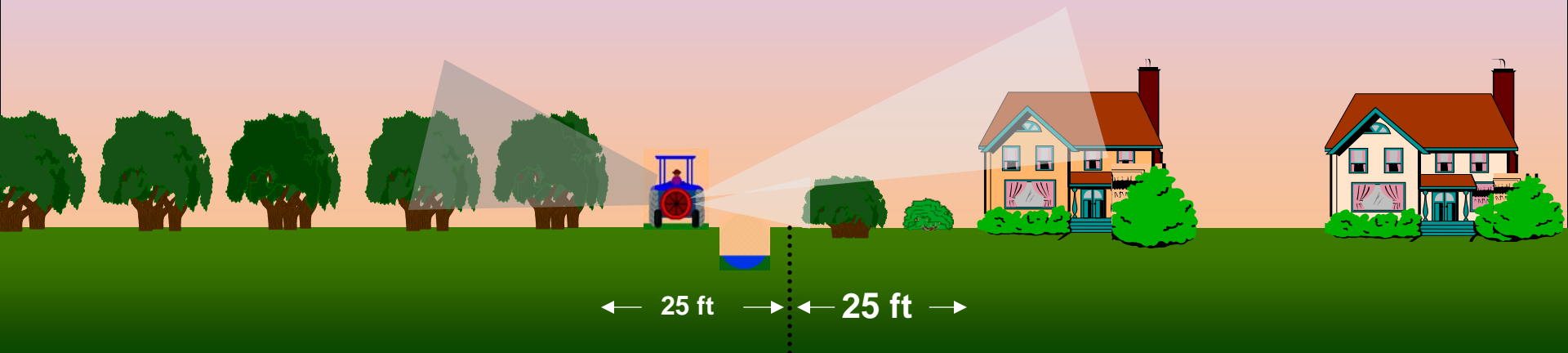
Composted Poultry Manure Application

Spray Drift



Elevation Views of 2 Agricultural/Residential Buffers

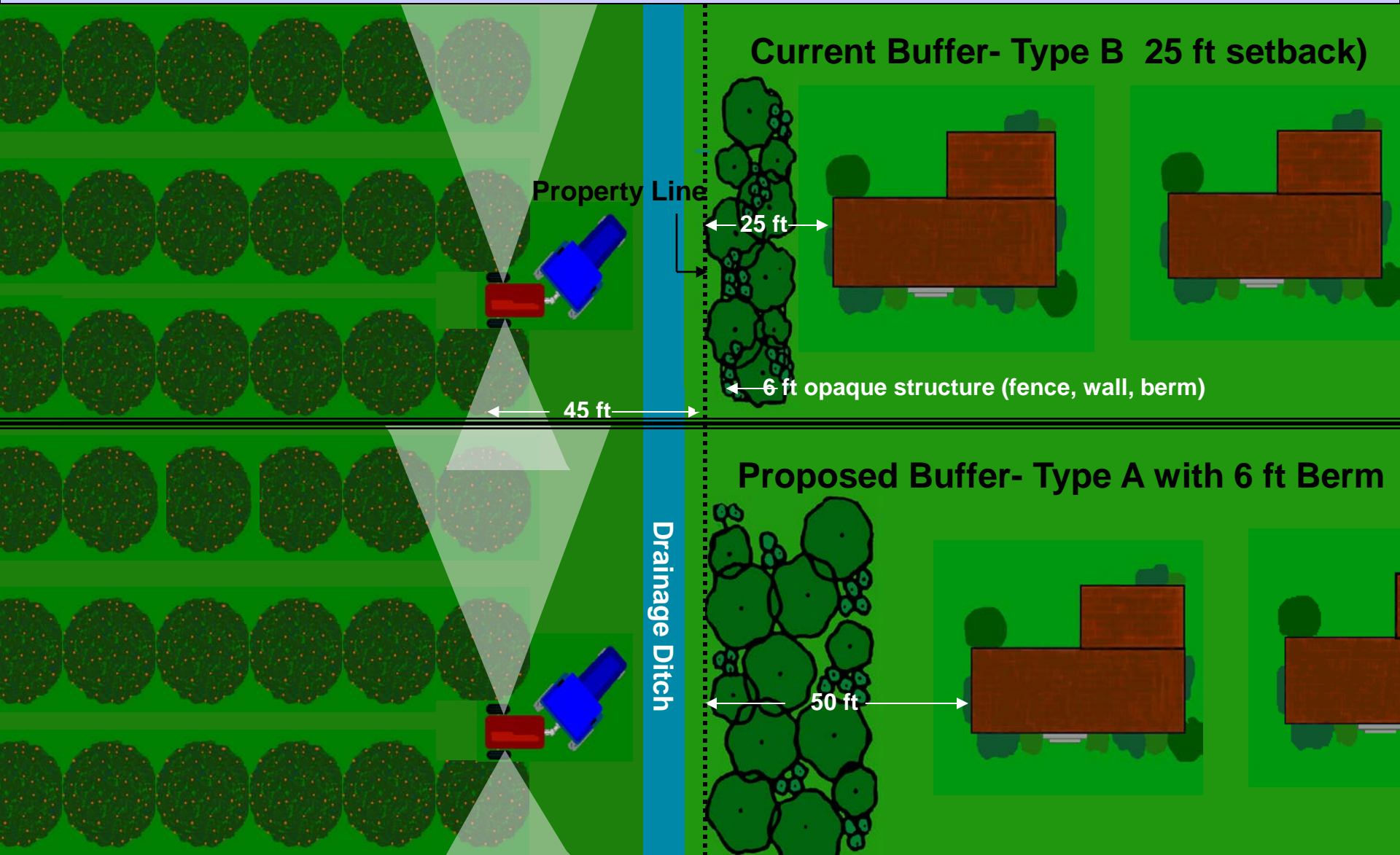
Proposed Inadequate Buffer: 25 ft. setback with Type B



Effective Buffer: 50 ft. setback & 6 ft. Berm with Type A



Topographical View of 2 Agricultural/Residential Buffers



Example of an effective buffer at the Urban-Ag interface*



6 ft. earthen berm with Type B Landscape Buffer and 50 ft. setback

*This buffer was installed by Walker Ave Club as approved by the IRC Planning & Zoning Commission on Dec. 9, 1999



TERAN LLC
10.00 Acres

Florida Research Center for Agricultural Sustainability
20.00 Acres

Florida Research Center for Agricultural Sustainability
10.37 Acres

Proposed 25' Type B Buffer

12 Sited Homes within 50' of Citrus Farming

ROYAL PROFESSIONAL BUILDERS
9.00 Acres

ROYAL PROFESSIONAL BUILDERS
10.35 Acres

LIDDELL
5.00 Acres

FRETWELL
5.00 Acres

Proposed 50' Type A Buffer with 3' Berm & 3' Hedge

6 ft. Earthen Berm with Type B Buffer

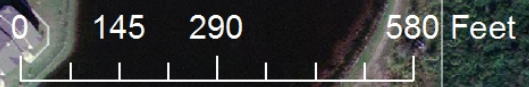
70 ft. set back

BENCHMARK DAVIE-WALKER WOODS
29.18 Acres

CWS COMMUNITIES LP*
174.54 Acres

6 ft. Earthen Berm with Type A Buffer

WALKER AVENUE CLUB LTD
26.95 Acres



The following slides are a
brief history of some
of the changes in
Indian River County's
LDR's for buffers

The buffer ordinance as amended May 27, 1997 after extensive work by Planning Staff that determined it was necessary to amend existing LDRs to provide enhanced buffers to protect residents from agricultural activities such as: application of fertilizers, herbicides, or pesticides.

Section 911.04(3)(c) *Minimum yard and setback requirements.*

5. *Yards adjacent to agricultural operations.* Subdivision and planned development projects located within the urban area proposing new residential lots adjacent to active agricultural operations (e.g. citrus groves and field crops) **shall include provisions for a special buffer**. Said buffer shall be provided between the proposed residential use and the agricultural operation and **shall consist of native vegetation planted in a twenty-five-foot (or wider) Type "B" buffer with a six-foot opaque feature**, as described in Chapter 926. Where required, said buffer shall be treated as a required subdivision improvement for the project or project phase in which the buffer is to be located. The buffer and opaque feature shall be maintained until such time as the adjacent property being buffered is converted to a non-agricultural use.

This is the current LDR for units adjacent to the USA Boundary:

Section 911.04.(3) (c) *Minimum yard and setback requirements.*

5. Residential lots and units adjacent to the urban service area boundary.

Residential subdivision projects, site plan projects, and planned development projects located inside the urban service area where new residential lots or units are proposed adjacent to the urban service area boundary **shall include provisions for a special buffer**. Project sites are considered adjacent to the urban service area boundary when adjoining that boundary and when separated from that boundary by intervening road and canal rights-of-way. Said buffer shall be provided in a separate tract and provided between the proposed residential lot (single-family) or unit (multi-family) and the urban service area boundary and **shall consist of native vegetation planted in a fifty-foot or wider Type "B" buffer with a six-foot opaque feature, as described in Chapter 926.**

Where walls are used, the wall variation requirements of subdivision ordinance section 913.09(9) shall apply. Where required, said buffer shall be treated as a required improvement for the project or project phase in which the buffer is to be located.

This is the current LDR for Yards adjacent to active Ag within the USA:

Section 911.04.(3) (c) *Minimum yard and setback requirements.*

6. *Yards adjacent to active agricultural operations.* Subdivision and planned development projects located within the urban service area where new residential lots are proposed adjacent to active agricultural operations that typically involve application of fertilizers, herbicides, or pesticides (e.g., citrus groves and field crops) **shall provide a special buffer**. A pasture shall not be considered an active agricultural use for purposes of this buffer requirement unless the pasture is regularly sprayed with fertilizers, herbicides, or pesticides. The buffer shall be provided between the proposed residential lots and the adjacent active agricultural operation and shall consist of the quantity of canopy and understory trees required in a twenty-five-foot wide Type "B" buffer ~~with a six-foot opaque feature~~. As an alternative to the Type "B" buffer canopy and understory tree plantings, the developer may propose and the county may approve the planting of a windbreak with appropriate tree species that will form a continuous screen at least eight (8) feet tall within three (3) years of planting.

- “Good Fences Make Good Neighbors” --Anonymous
- “Love thy neighbor, yet don’t pull down your hedge.” -- Benjamin Franklin
- “A hedge between keeps friendship green”
--German Proverb
- “...the most challenging problem for agricultural policy is to devise institutional mechanisms that will reward individual farmers for valuing these precious resources (land, water, and genetic diversity) at their true social worth. --P. R. Crosson and N. J. Rosenberg. 1990. Strategies for Agriculture. p. 73-83. In W. H. Freeman and Co. (ed.). Managing Planet Earth Readings From Scientific American Magazine. New York, NY.