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SHORE FACTS

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Poultry House Operations: An Overview

By Sue Mastyl

With all the concern about the increased number and size of industrial-scale poultry houses in Accomack County, it's important to understand these operations and their impacts. Since the majority of new poultry houses are being built for Tyson contractors, we have focused on the newest designs being built for Tyson contractors, which may or may not be similar to those of other poultry growers on the Shore. An operation of 24 industrial-size poultry houses will involve the following:

- Each poultry house is 66 feet wide and 600 feet long (39,600 sq. ft., or 0.91 acre).
- With 24 houses on two 60-acre sites, 22 of the 120 acres will be covered by the poultry houses, leaving 98 acres for manure sheds, wastewater control, stormwater runoff control, feed storage, burial of dead chickens, roads, equipment sheds, and other operations. Poultry houses are constructed with a clay floor.
- Tyson has said they can raise 40,000 to 60,000 birds (at 5.5 pounds average) per crop, depending on target size. With an average of 50,000 birds per house per crop, 24 poultry houses can produce 1.2 million birds per crop.
- A crop cycle is between 42 and 49 days; Tyson is on a cycle of 5 crops per year.
- With 5 crops a year, a 24-house operation will produce 6 million birds a year.
- Anticipated bird loss is 3% to 5% per crop per house; with 3%, this equates to 1,500 dead birds per house per crop, or 36,000 dead birds per crop and 180,000 dead birds per year, which are composted on-site per Tyson's practice.
- With a waste/manure ratio of 2 pounds of manure/litter per 4 pounds of meat produced, a total of 2.4 million pounds of manure will be generated with each crop, or 12 million pounds (6,000 tons) per year, which is composted on-site per Tyson's guidelines.
- With a normal field application of manure of two to seven tons per acre, depending on the crop, 6,000 tons would provide manure for 900 to 3,000 acres. At 50,000 pounds per truck, this would require 240 truckloads each year from the site.
- With a feed/live weight conversion ratio of 1.8, a 5.5-pound bird would require 9.9 pounds of feed; with 50,000 pounds of feed per truck, and a net 1,164,000 live birds per crop, each crop will require 11.5 million pounds of feed, or 230 truckloads per crop, and 1,150 truckloads per year. Feed trucks usually make eight deliveries during a single crop cycle, spaced about a week apart. Assuming the same weight of feed for each delivery, and if all houses are on the same cycle, this would mean 40 deliveries of 29 truckloads each during the year.
- When the chicks are delivered for placement in the poultry houses, each truck can hold approximately 100,000 chicks, which means one truck for every two poultry houses. If the poultry houses are all operating on the same schedule, this would mean 12 trucks on a single day for placement.
- A net of 1,164,000 live birds per crop equates to 6.4 million pounds; with 32,000 pounds per truck, each crop will require 200 live-haul truckloads, or 1,000 truckloads per year. If the poultry houses are on the same schedule, this would mean 200 live-haul trucks over the space of 2 or 3 days. Even if the crops in each poultry house are staggered, this would equate to 8.3 large live-haul trucks per house per crop in a single day.
- According to the Accomack County Planning Department, the Virginia Department of Transportation (VDOT) only needs to approve the road and traffic situation at the entrance to each poultry operation; they will not review the roads over which the trucks are traveling, or the intersections to get to each operation.

See Poultry House Operations, cont'd on p. 4

Poultry House Locations

by Sue Mastyl

The number of applications for poultry houses in Accomack County has mushroomed over the last year. In 2014, applications were approved for a total of 21 poultry houses, with one additional house pending. In 2015, 67 poultry houses were approved, with pending applications for an additional 12 houses. So far in 2016, applications for 43 houses have been approved, and applications are pending for an additional 154 poultry houses. If all of the pending applications are approved, this will add 298 poultry houses in less than three years. Before this surge, the number of active poultry houses was estimated at 308.

In other words, the number of poultry houses will double and, since the new houses are larger and are in many cases on lands that have not been previously used for poultry farming, the impact to the environment and the community will be much greater. The map on the following page shows this dramatically (although the number of houses at specific sites may differ slightly) – existing locations have fewer houses on each site, and are more scattered throughout the county, while the new applications are more concentrated and are nearer to major roads and towns.

Based on applications and real estate transactions on record, some of the new locations could include:

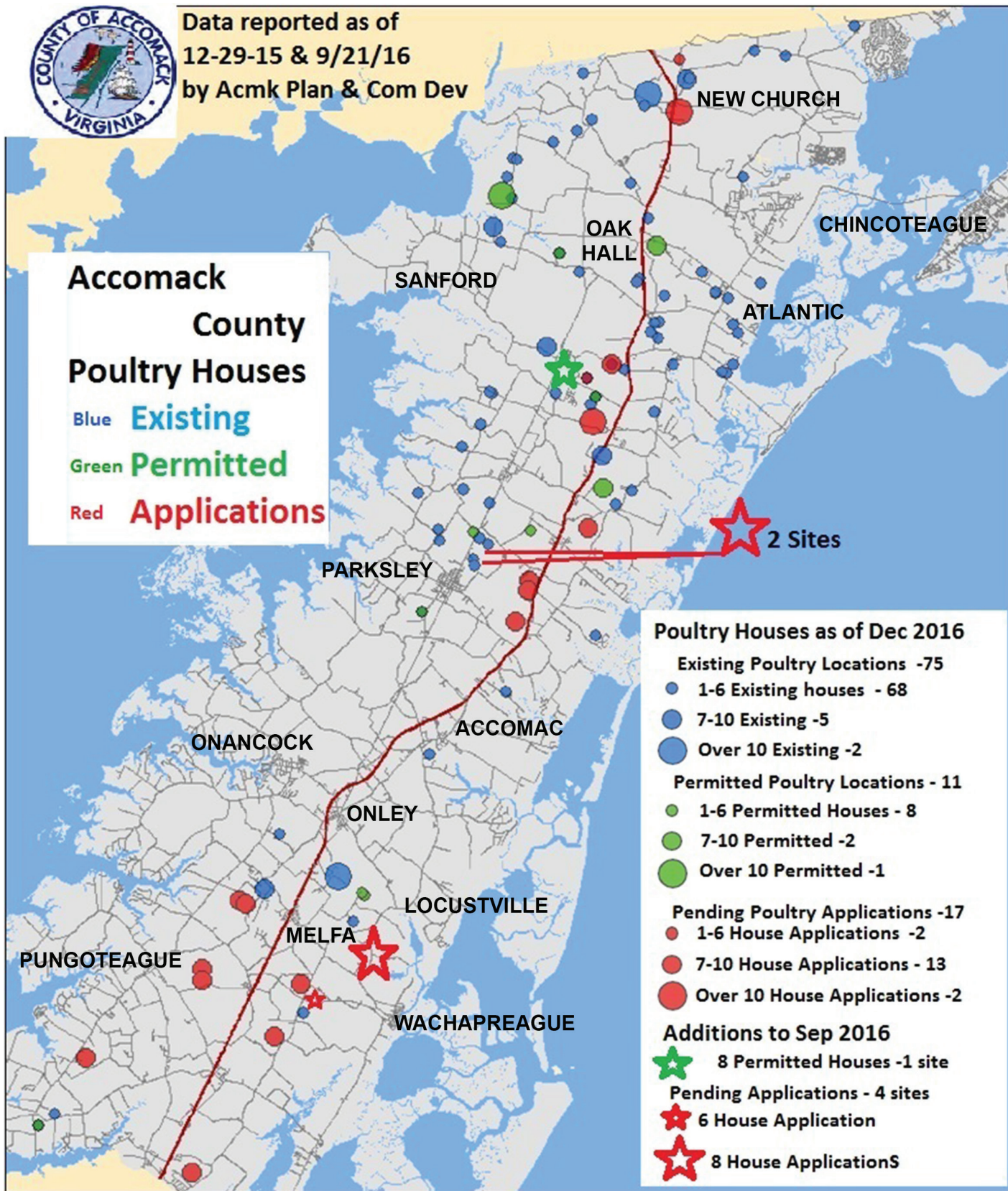
- 24 houses (originally 20) on two adjacent parcels on Pungoteague Road (Rt. 180) between Keller and Pungoteague, at the headwaters of Taylor Creek
- 16 houses on three adjacent parcels on Beacon Road west of Melfa, at the headwaters of Warehouse Prong
- 16 houses on two parcels within a short distance on Seaside Road west of Wachapreague
- 16 houses on two parcels, adjacent to 12 houses on two parcels under construction (total of 28 houses), on Rose Cottage Road between Fair Oaks Road and Drummondtown Road in Locustville, at the headwaters of Finney Creek
- 12 houses on Jollys Neck Road north of Sanford, near Holdens Creek
- 8 houses on Holland Road west of Oak Hall, at the headwaters of Bullbegger Creek
- 12 houses on Horntown Road at Rt. 13 in New Church
- 16 houses on two parcels between Hopeton Road and County Road north of Parksley
- 16 houses on two parcels on Rt. 13 across from Whites Neck Road north of Parksley

- 14 houses on two locations within 1.4 miles on Nocks Landing Road in Atlantic

Although Tyson has said that the buildout to 600 poultry houses will meet their needs, and Perdue has not indicated any need for expansion, real estate activity continues (*see article on page 4*). Former Accomack County Planning Commissioner Tony Picardi has made some estimates showing that, based on the total number of farms in the county (226 as of the 2012 census of agriculture) and the total acreage in farms (77,389 acres), the potential buildout of industrial poultry houses in the county is almost 2,000. If landowners adjust the boundaries of larger parcels (to split them up into 60-acre parcels in order to allow the maximum of 12 houses per parcel), this could increase to over 6,000. However, an in-depth analysis for a more accurate buildout number would need to take into consideration setbacks as well as restrictions from the Chesapeake Bay Preservation Act and other regulations.

It can also be argued that industrial-scale poultry houses are not consistent with the “agricultural landscape” enshrined in the county’s Comprehensive Plan, and any further buildout may require a rethinking of that approach. Rich Morrison, Director of Planning for Accomack County, responded to CBES request for a buildout analysis with a statement that “The Planning Department is not in a position to undertake such an effort, and [we] believe that we have a fairly good handle on the current number of poultry houses and the projected numbers of houses for the next 2 to 3 years.”

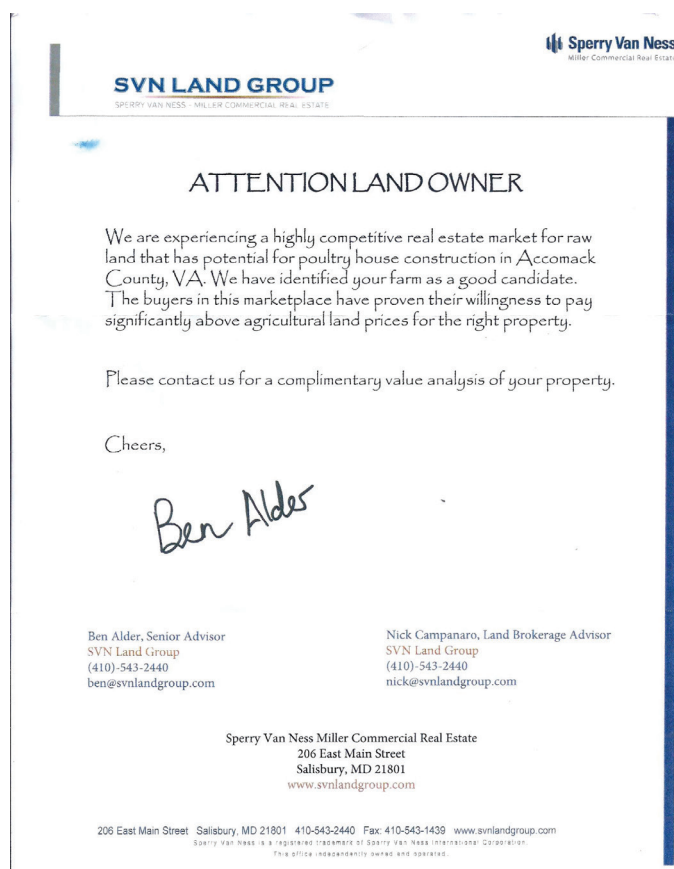
ShoreLine Comment: *In agricultural zoning, industrial-scale poultry farms are allowed by right. Solid community planning, to protect public health and our natural resources, should include a basic analysis of potential buildout (and the ancillary impact), independent of what integrators are reporting, and prior to formulating any new regulations. A careful analysis of the potential effects of this much stress on our sole-source aquifer and the fact that the recharge zone for that aquifer runs alongside Rt. 13 would be warranted before approving additional poultry house locations. The long-term environmental cost may well exceed any short-term benefits to be had from largely unfettered expansion of concentrated animal feeding operations (CAFOs) on the Shore.*



Poultry houses (existing, permitted, and pending) in Accomack County as of December 29, 2015 (Dec 2016; circles) and from January 1 to September 21, 2016 (Sep 2016; stars).

Poultry-Related Real Estate Transactions Continue

by Sue Mastyl



Although Tyson has stated that the poultry houses currently in the application process or under construction will meet their needs for plant expansion, real estate activity has continued. Several recent transactions have been completed involving parcels of 60 acres or more (which would allow a maximum of 12 poultry houses per parcel), at 50% to 100% above assessed value. Landowners in several areas of the county have continued to receive letters such as the one shown at left, which is clearly seeking willing sellers for motivated buyers.

Poultry House Operations, cont'd from p. 1

- A 5.5-pound chicken will drink at least 2 gallons of water during the life of the bird. This equates to a usage of 100,000 gallons per house per crop, and 2.4 million gallons per crop. With 5 crops per year, this would equate to 12 million gallons per year of groundwater withdrawal. An additional 25% of water usage is required for the evaporative cooling system, yielding a total of 15 million gallons a year, or an average of 42,000 gallons a day.

Compiled with the help of Preserve Our Shore: Smarter Growth Better Life and Socially Responsible Agricultural Project.

SOURCES:

Davis MA, Sloan DR, Kidder G, Jacobs RD. University of Florida IFAS Extension: Poultry Manure as a Fertilizer. Revised Nov 2013. <http://edis.ifas.ufl.edu/aa205>

Poultry Hub. Broiler Production Trainers Manual: Unit 5: Commercial Broiler Production, 2016. <http://www.poultryhub.org/family-poultry-training-course/trainers-manual/broiler-production/>

Poultry Hub. Water consumption rates for chickens. <http://www.poultryhub.org/nutrition/nutrient-requirements/water-consumption-rates-for-chickens/>

Learn More

An extensive review of the CBES forum on Community Impacts of Industrial Poultry Operations, held in January of this year, along with an overview of the current poultry ordinance for Accomack County, can be found in the February 2016 issue of *ShoreLine* at www.cbcs.org.