

Feasibility Study Phase I

For a

Regional Agricultural Center (RAC)

For

**Anne Arundel Economic Development
Corporation**

Prepared by:

Matson Consulting, LLC

PO Box 661

Aiken SC 29802

Phone: 803-233-7134

Fax: 803-233-7938

www.matsonconsult.com



May 2026

This document contains privileged and confidential information intended only for the use of the Anne Arundel Economic Development Corporation and Anne Arundel County, MD. You are hereby notified that any use, dissemination, distribution or reproduction of this document, either in its entirety or in part, without the express written permission of the client is prohibited.

EXECUTIVE SUMMARY

The Anne Arundel Economic Development Corporation (AAEDC) commissioned Matson Consulting, LLC to conduct a Phase I feasibility study examining the viability of a Regional Agricultural Center (RAC) on a county-owned site in Anne Arundel County. The study assessed community demand, characterized the regional agricultural infrastructure gap, evaluated industry and market conditions, and identified the regulatory and operational framework governing a new shared agricultural facility.

To inform the study, Matson Consulting conducted a comprehensive outreach process between December 2025 and March 2026, engaging more than 110 survey respondents across three targeted surveys, 19 stakeholders through 15 in-depth interviews, and approximately 15 community representatives at an in-person stakeholder meeting held at AAEDC offices on March 12, 2026. The findings across all outreach phases are strikingly consistent. Nearly 80% of general survey respondents rated a RAC as important or very important to the local agricultural economy, and 70% indicated they would be likely or very likely to use its services. The dominant barrier cited was a simple lack of nearby facilities, identified by 64% of respondents, reinforcing that geography and capacity represent the core unmet need in the region.

Demand for USDA-inspected meat slaughter and processing emerged as the highest-priority need at every level of engagement, identified by 54% of general survey respondents, echoed consistently through interviews, and confirmed as the primary community priority at the stakeholder meeting. Stakeholders were emphatic that co-location of slaughter and processing at a single facility is essential, as producers are currently traveling to separate facilities for each service at significant cost and logistical burden. Quality, traceability, and trust were identified as determinative factors for producer adoption, with stakeholders clear that a facility must deliver consistent, high-quality results from the outset. Commercial kitchen access and a broader “campus model” accommodating co-located complementary services were also widely endorsed as part of the RAC vision.

Industry and market conditions are broadly favorable: consumer demand for locally processed red meat remains strong, retail prices have trended upward, and the supply of USDA-inspected facilities within a practical service radius of Anne Arundel County is critically limited. The proposed site presents both opportunities and near-term constraints, including the need for demolition of an existing structure, infrastructure improvements, and zoning text amendments to permit slaughter activities; regulatory steps that must advance in parallel with the feasibility analysis.

The evidence documented in this Phase I study establishes a clear and well-supported community case and positions the project for the detailed site, financial, and operational analysis that will follow in subsequent phases.

Table of Contents

Executive Summary.....2

Phase I Feasibility Study Findings.....6

 Community Demand6

 The Proposed Site7

 Regulatory and Zoning Framework8

 Regional Processing Capacity Gap.....9

 Market and Industry Conditions 11

 Financial Viability Assessment..... 12

 Capital Requirements and Financing Landscape 13

 Phase II Priorities and Path Forward 13

Anne Arundel County RAC Outreach Summary 15

Survey Process and Findings 16

 General Interest Survey Key Findings 16

 Livestock Producer Key Findings 17

 Commercial Kitchen Key Findings 18

Interview Process and Findings.....21

 Common Themes.....21

 Interview Key Findings22

 List of Individual Respondents24

In-Person Outreach and Engagement.....25

 Stakeholder Meeting – March 12, 202625

 Site Visit27

Risks, Registration, and Regulations28

 Section I: Business Risks29

 Section II: Livestock Slaughter and Meat Processing Regulations31

 Section III: Value-Added Regulatory Environment34

 Section IV: Federal Food Safety Requirements.....38

 Section V: Business Registration and Federal Oversight41

 Section VI: Workplace & Environmental Compliance45

Regional Livestock Slaughter and Red Meat Processing Facilities.....48

Anne Arundel RAC Feasibility Study Phase I

USDA Inspected Facilities48

 Figure 1: USDA Inspected Meat Slaughter and Processing Facilities Map50

Detailed Facility Descriptions51

Other USDA-Inspected Facilities Around the Region52

Custom Exempt (Non-USDA Inspected) Facilities54

 Stauffer's Butcher Barn – Upgrading to USDA.....55

Livestock and Meat Industry Background57

 National Red Meat Industry57

 Table 1: National Red Meat Livestock Inventory - Total Head: 2010-2025.....57

 Table 2: 2024-2025 US Red Meat Forecasts: Production, million lbs.58

 Table 3: 2025 Livestock Prices.....58

 National Red Meat Slaughter and Processing58

 Figure 2: National Red Meat Slaughter, Commercial Production, 2000-202559

 Figure 3: 2024-2025 Commercial Red Meat Production60

 Table 4: Top 11 Meat Processors (Ranked by 2025 Sales).....60

 Recent Meat Processing Investment61

 National Cattle Trends.....62

 Figure 4: 2024-2025 Commercial Cattle Slaughter63

 National Hog Trends.....64

 Figure 5: 2016-2025 Hog and Pigs Inventory.....64

 Figure 6: Hog Market Trends65

 Retail Meat Pricing65

 Figure 7: Historical Retail Beef and Pork Prices, 2015-202466

 Figure 8: Retail Beef Prices by Product, 2021-2025.....67

 Red Meat Demand and Consumption67

 Figure 9: Total Red Meat Disappearance 1970-202068

 Figure 10: Retail All Fresh Meat Demand Index.....69

 Table 5: Per Capita Meat Disappearance Forecast, Retail lbs.....69

 Figure 11: Retail Weight Per Capita Disappearance 2015-202570

 Maryland Red Meat and Livestock Industry.....71

 Cattle and Beef Production.....72

Anne Arundel RAC Feasibility Study Phase I

Figure 12: All Cattle and Calves Maryland 2013-2022 73

Hog Production 73

Figure 13: Maryland Hog Inventory 2013-2022 74

Goats and Sheep..... 75

Maryland Project Counties 76

Table 6: Livestock Inventory by County - Maryland 76

Regional Commercial Kitchen Facilities 82

Existing Community and Incubator Kitchens 82

Figure 14: Commercial Kitchen Facilities Map 84

Preliminary Needs Assessment 90

Throughput Capacity Requirements 90

Section 2: Prototypical Facility Layout Design and Recommendations 93

Section 3: Estimated Equipment Lists and Operational Requirements..... 100

Section 4: Staffing Needs and Labor Costs 103

Section 5: Financing Options and Their Impact on Project Feasibility..... 107

Section 6: Pre-Operational Decision Framework and Implementation Pathway..... 110

Preliminary Breakeven Analysis 120

Section 1: Purpose and Scope 120

Section 2: Throughput and Fee Assumptions 121

Section 3: Preliminary Revenue Estimate 123

Section 4: Preliminary Expense Estimate..... 123

Section 5: Preliminary Breakeven Finding 124

Section 6: Preliminary Capital Cost Context 126

Section 7: Capital Structure and Financing Scenario 129

Section 8: Interpretation 132

PHASE I FEASIBILITY STUDY FINDINGS

This section synthesizes the principal findings of the Phase I Feasibility Study across all major areas of analysis: community outreach, the proposed site, the regulatory and zoning environment, the regional processing facility landscape, and national and regional market conditions. It is intended to provide a consolidated reference for stakeholders and decision-makers and to frame the analytical basis for the Anne Arundel Economic Development Corporation's decision to pursue a livestock slaughter and meat processing facility as the primary RAC activity. Site engineering, financial pro forma development, operator identification, and detailed regulatory compliance planning are reserved for subsequent phases. The Phase I study establishes a clear, well-documented foundation for that work.

Community Demand

The outreach process conducted between December 2025 and March 2026 generated one of the most consistent demand signals the study team has encountered in comparable feasibility work. Across more than 110 survey respondents, 19 interviewed stakeholders, and approximately 15 community representatives at the March 12 stakeholder meeting, the findings point in the same direction at every level of engagement: the Southern Maryland agricultural community recognizes a well-defined infrastructure gap, understands what it needs, and is ready to use a facility that addresses it.

USDA-inspected meat slaughter and processing is the dominant priority. It led all service categories in the general interest survey at 54%, was the near-unanimous top choice among livestock producers (81% said they would use a new USDA-inspected facility; no producer said no), and was confirmed as the primary community priority at the stakeholder meeting. The demand is not aspirational. It reflects a concrete and felt operational need. Producers are currently traveling to facilities 90 or more minutes away, waiting up to a year for kill dates, and visiting separate facilities for slaughter and processing services at significant cost. For small and mid-scale operations, these logistics directly compress profitability and suppress production capacity. Multiple producers indicated they would expand their herds if reliable local processing became available, pointing to a meaningful amount of suppressed agricultural output in the region.

Co-location of slaughter and processing emerged as a non-negotiable design requirement. Stakeholders were clear throughout interviews and at the stakeholder meeting that a facility offering only one of the two services does not solve the problem producers face. If co-location on a single site proves infeasible, the facility itself would need to take responsibility for coordinating carcass transport, an arrangement that stakeholders accepted reluctantly but considered preferable to the status quo. Traceability was closely linked to this concern: producers need assurance that they will receive their own animal through the full processing chain, and additional handoffs increase the risk of breakdowns in the chain of custody that would erode producer confidence and drive them back to out-of-state alternatives.

Quality and trust were identified across every phase of outreach as determinative factors for producer adoption. Stakeholders were emphatic that a new facility must deliver consistent, high-quality results from the outset. A poor first impression, stakeholders noted, would send producers back to distant facilities and make rebuilding confidence an uphill challenge. This has direct implications for Phase II: facility design, equipment selection, operator identification, and quality assurance protocols are not secondary considerations but foundational ones.

Commercial kitchen access represents a meaningful secondary opportunity, particularly for the region's growing base of farm-based value-added producers and food entrepreneurs. Nearly all commercial kitchen survey respondents (93%) confirmed the lack of accessible shared-use kitchen infrastructure in Southern Maryland, and 75% are actively seeking such a facility. AAEDC has determined that commercial kitchen development is not part of the initial RAC program, both because the operational and regulatory demands of a USDA-inspected slaughter and processing operation are difficult to reconcile with a rotating multi-user kitchen on the same site, and because complementary resources are emerging independently in the county. The commercial kitchen opportunity remains worth monitoring and revisiting as the RAC matures.

More details on the results of the outreach process and identified community demand for the project can be found in the following sections:

- Anne Arundel County RAC Outreach Summary – page 15
- Survey Process and Findings – page 16
- Interview Process and Findings – page 21
- In-Person Outreach and Engagement – page 25

The Proposed Site

The site visit conducted in conjunction with the March 12 stakeholder meeting provided important firsthand assessment of the proposed RAC location. The site's most prominent feature is a grain mill and elevator complex that has been closed for approximately two years. Anne Arundel County is currently maintaining the structure to prevent further deterioration, and some repair work has been completed on the silos. However, the milling machinery and scales are no longer operational, and the existing facility would need to be fully demolished and cleared before meaningful redevelopment could proceed. Demolition and site clearance represent a real and near-term capital cost that must be incorporated into Phase II financial analysis.

The site has electrical power access, is located in a rural setting with proximity to a major roadway providing reasonable transportation access for producers and commercial vehicles, and carries agricultural precedent from its prior use as a grain mill. That prior use, which generated substantial dust and noise, is relevant to future zoning and land use discussions, as it establishes a baseline of agricultural and light industrial activity at the location. There is no rail access, which is not a material constraint for the scale of operation contemplated.

The most significant infrastructure constraint is the site's reliance on a private well and septic system, with no municipal water or sewer service available and no current plans to extend those services to the area. Water supply and effluent management are central to the viability of a livestock slaughter and processing operation, not peripheral concerns. USDA-inspected slaughter requires substantial volumes of water for animal handling, carcass washing, and facility sanitation, and generates significant volumes of wastewater and organic waste that must be managed in accordance with environmental regulations. The well and septic infrastructure as currently configured may be insufficient to meet these demands, and the cost of engineering solutions, including expanded septic capacity, constructed wetlands, land application systems, or other treatment approaches, will be a material factor in the project's capital requirements. Participants at the stakeholder meeting noted that the county is exploring expansion of a nearby wastewater facility that could potentially serve the site, a development worth tracking closely. Phase II site engineering work should treat water and wastewater as a priority analytical question.

The presence of some nearby residential properties requires thoughtful site planning around operational buffers, traffic management, and odor and noise mitigation. These are standard considerations in slaughter facility siting that are addressable through design but must be incorporated from the outset. Stakeholders noted during the meeting that proximity to population centers is, on balance, an asset for the facility's labor supply and market access, provided that the operational footprint is appropriately managed.

More details on the proposed site and site-related zoning considerations can be found in the following sections:

- Site Visit – page 27
- Risks, Registration, and Regulations – page 28

Regulatory and Zoning Framework

The regulatory pathway for the RAC is navigable, but it involves parallel tracks of action that will need to advance simultaneously with the broader feasibility analysis. The most foundational near-term requirement is a zoning code text amendment to permit slaughter activities on the site. Under current Anne Arundel County zoning regulations, slaughter is permitted under certain circumstances, but a facility on the Lothian site would require a zoning change to allow for it. AAEDC has identified this as a necessary first step and is committed to pursuing the amendment. The Legislative Committee of the Agricultural Commission has been identified as an appropriate body to review and advise on the required changes. The site's non-farm designation may also present a complicating factor for certain agricultural uses and will require review in the context of any zoning amendment process.

Beyond local zoning, the facility will operate under a layered regulatory framework. A USDA-inspected facility requires continuous on-site inspection by FSIS personnel during slaughter and processing operations, a requirement that shapes facility design, including a dedicated inspector

office with lockable storage and spatial layouts separating clean and contaminated zones, as well as staffing and scheduling. Comprehensive Hazard Analysis and Critical Control Point (HACCP) plans, Sanitation Standard Operating Procedures (SSOPs), and Good Manufacturing Practices (GMP) documentation must be developed and approved prior to opening. Every USDA-inspected facility navigates these requirements, and they are substantive undertakings that take time and expertise to address correctly. The quality and completeness of these plans will be directly relevant to the facility's ability to attract and retain USDA inspection, and by extension, its ability to serve producers who require inspected product.

Maryland is not among the states covered by the Talmadge-Aiken Act, meaning state inspectors cannot conduct federal inspections on behalf of FSIS. The facility will require direct USDA/FSIS inspection, and early engagement with FSIS during the design and planning phase is advisable to ensure that facility layout, equipment, and operational protocols conform to inspection requirements before capital is committed to construction. The Maryland Department of Agriculture and Maryland Department of Health each play roles in the regulatory environment, overseeing animal health and food safety respectively, and both agencies should be engaged as planning partners as the project advances.

A broader consideration for the RAC's positioning is the tension between agricultural and commercial uses under Maryland land use law. State-level agricultural policy treats processing as a natural extension of farming, while local zoning codes in many jurisdictions treat processing and retail as commercial activities distinct from agricultural use. Framing the RAC as agricultural support infrastructure rather than a commercial processing facility will be important both in the zoning amendment process and in future permitting and compliance discussions. The county's prior experience permitting the grain mill operation provides some useful precedent for this approach.

More information on the regulatory and zoning framework surrounding livestock slaughter, meat processing, and value-added processing can be found in the following section:

- Risks, Registration, and Regulations – page 28

Regional Processing Capacity Gap

The competitive landscape analysis confirms what outreach respondents described in qualitative terms: the supply of USDA-inspected processing capacity accessible to independent producers in the study area is critically limited. There is currently no USDA-inspected slaughter facility operating in Anne Arundel, Prince George's, Calvert, or Charles Counties. West Forty Market in St. Mary's County is the only USDA-certified slaughter facility in the five-county study area, and while its certification in 2021 was a significant milestone, its capacity and geographic reach do not address the gap across the four remaining counties.

The most significant recent development is the pending USDA upgrade of Stauffer's Butcher Barn, also in St. Mary's County. Funded through the Southern Maryland Livestock Processing

Revolving Loan Fund, a joint SMADC-MARBIDCO initiative, Stauffer's is expected to achieve USDA certification in 2025 or 2026 and will offer comprehensive retail processing services for beef, hogs, sheep, and goats. Combined with West Forty Market's slaughter services, this creates a complete processing circuit within St. Mary's County, a meaningful improvement for producers in the southern portion of the study area. It does not, however, address the processing gap facing producers in Anne Arundel, Calvert, Charles, and Prince George's Counties, for whom the nearest USDA-inspected slaughter remains 30 to 45 minutes away in the Baltimore area, at facilities with limited multi-species capability, constrained capacity, and no meaningful focus on Southern Maryland producers.

Beyond the Baltimore corridor, producers seeking multi-species slaughter and full-service processing are traveling to Sudlersville on the Eastern Shore (1.5 to 2 hours away), or to facilities in Pennsylvania and Virginia that are each 1.5 to 2 or more hours from Anne Arundel County. Year-long wait times for kill dates at the Pennsylvania facilities were cited repeatedly through outreach as a concrete operational constraint with direct financial consequences. Producers who sell live animals rather than processed meat, currently 25% of livestock survey respondents, often do so not by preference but because the cost and logistical burden of accessing processing make direct-to-consumer meat sales economically unviable. A well-sited, well-operated RAC processing facility would directly address this dynamic, enabling producers to capture the full value of their livestock in markets that require inspected product.

The 13 USDA-inspected facilities in Prince George's County, the most facility-dense county in the study area, are exclusively value-added processors focused on prepared foods, specialty sausages, and ethnic food products. None offer primary slaughter or fabrication services. The RAC would not be competing with these facilities for producer clients; it would be filling a structurally different and unserved role in the regional food system.

While commercial kitchen access was identified as a significant secondary priority through the RAC outreach process, it is not being pursued as an immediate component of the proposed facility. The primary focus of RAC Phase II study will be livestock slaughter and meat processing, and the operational, physical, and regulatory demands of that use would make co-location with a shared-use commercial kitchen difficult in the near term. The county views commercial kitchen capacity as a longer-term consideration, one worth continued attention as the RAC concept matures and as the regional food entrepreneur landscape develops, but not as part of the facility's initial program.

Such a facility would address a meaningful segment of the demand surfaced through RAC outreach, particularly from food entrepreneurs and farm-based value-added producers seeking licensed prep and incubator-style support. However, the outreach findings suggest that a portion of regional demand goes beyond what a traditional shared-use kitchen provides, with producers indicating interest in co-packaging and small-batch manufacturing capabilities that require different equipment, infrastructure, and regulatory standing. Any future RAC value-added

component would be most appropriately framed around that co-packaging and light manufacturing need rather than replicating shared-use kitchen services already being developed elsewhere in the county. Complicating co-location further, the MDA representative at the March 12 stakeholder meeting flagged that a multi-user facility, such as a rotating shared-use kitchen, operating alongside a USDA-inspected slaughter and processing operation creates significant regulatory tension, as the inspection regimes, sanitation requirements, and facility access protocols governing each use are difficult to reconcile on a single site.

More information on gap in value-added processing capacity and existing facilities can be found in the following sections:

- Regional Livestock Slaughter and Red Meat Processing Facilities – page 48
- Regional Commercial Kitchen Facilities – page 82

Market and Industry Conditions

The national and regional market environment for livestock processing is broadly favorable for a new independent facility. The most important dynamic shaping the market in 2025 is a tightening of supply relative to demand. U.S. cattle inventories have declined by more than 10% since 2010, and commercial red meat production has contracted in both 2024 and the first half of 2025 compared to prior years. The combination of reduced cattle supply and sustained consumer demand has driven prices to historic highs: cattle prices reached \$201 per hundredweight in 2025, nearly double the 2021 level of \$122, and wholesale prices for 90% lean boneless beef exceeded 430 cents per pound by mid-summer, roughly 65% above the five-year average. These conditions mean that livestock entering a processing facility carry substantial value, and producers who can access inspected processing and reach retail and direct-to-consumer markets are positioned to capture significantly more value per animal than those selling live.

Retail beef and pork prices have trended steadily upward since 2020, driven initially by COVID-19 supply chain disruptions and sustained since by reduced herd sizes, higher input costs, and persistent processing capacity constraints. The average retail value of beef reached \$8.00 per pound in 2023, a 35% increase from 2017 levels. Consumer demand for locally sourced and transparently processed red meat remains strong and continues to command a price premium over commodity product. This aligns directly with the market the RAC would serve: producers raising cattle, hogs, sheep, and goats for direct-to-consumer, farmers market, and local retail channels who need inspected, labeled product to participate in those markets legally.

The structural consolidation of the national meatpacking industry, where four companies control approximately 85% of U.S. beef processing, has created significant barriers for independent producers seeking market-ready product. USDA's Meat and Poultry Processing Expansion Program (MPPEP) has directed more than \$325 million toward expanding independent processing capacity since 2022, signaling federal recognition of the gap and offering a potential funding avenue for the RAC. The program's track record also illustrates the risks involved: at least one MPPEP recipient filed for bankruptcy after receiving substantial grants and loan

guarantees, underscoring that capital access alone is not sufficient and that management expertise, reliable supply agreements, and a defined market are essential from the outset.

Maryland's red meat sector adds important regional texture. The state reported 196,911 head of cattle and calves in the 2022 Census of Agriculture, with beef and hog production concentrated in the more rural southern and western counties. St. Mary's County holds the largest livestock inventory in the study area by a substantial margin, making it both an anchor for regional supply and a near-term partial solution to the processing gap through the West Forty Market and Stauffer's Butcher Barn developments. Anne Arundel County, despite its suburban character and development pressure, maintains 454 farms and a livestock sector with 467 beef cows and 482 sheep and lambs, a small but active producer base within close proximity to the proposed site. Across all five project counties, producers share the same fundamental constraint: limited access to nearby USDA-inspected slaughter and processing.

More background on the livestock and meat market can be found in the following section:

- Livestock and Meat Industry Background – page 57

Financial Viability Assessment

The Phase I financial analysis establishes that the RAC concept is financially coherent at plausible throughput levels. A preliminary breakeven model, using an intermediate planning scenario of approximately 2,680 head annually across beef cattle, hogs, sheep, and goats, produces estimated Year 1 operating revenue of approximately \$1,857,000 against operating expenses that leave a slim positive EBITDA of roughly \$6,100. That result, less than half a percent of revenue, establishes that the revenue structure and cost structure of a facility of this type are in reasonable alignment at regional throughput levels. The concept is not inherently unviable; it warrants the capital investment of Phase II analysis.

Beef cattle drive approximately 85% of modeled revenue through a per-pound carcass processing fee, making beef throughput the single most consequential variable in the financial model. Labor accounts for roughly 56% of total operating expenses, a proportion typical of USDA-inspected processing operations and one that places a premium on scheduling discipline and multi-species workforce management. The operating result is sensitive to throughput in both directions: each 10% change in aggregate head count produces approximately \$186,000 in annual revenue impact, which underscores the importance of converting producer survey interest into formal scheduling commitments before capital is deployed. The model excludes depreciation and debt service, both of which depend on the capital structure. A facility financed substantially through grants can operate sustainably near this breakeven threshold; one carrying conventional commercial debt requires throughput toward the upper bound of the planning range.

More details on throughput scenarios, the preliminary operating model, and revenue sensitivity analysis can be found in the following sections:

- Preliminary Breakeven Analysis, Sections 1–5 – page 120

Capital Requirements and Financing Landscape

Total estimated capital investment for a USDA-inspected multi-species facility at this scale ranges from approximately \$3,400,000 to \$5,700,000, combining construction costs of \$3,000,000 to \$5,000,000 for 7,500 to 10,000 square feet of enclosed processing space — at \$400 to \$500 per square foot, consistent with Mid-Atlantic construction benchmarks — and equipment costs of \$400,000 to \$700,000. These figures exclude site acquisition, demolition of the existing grain mill, off-site utility improvements, and working capital reserves, all of which will add to the total project cost and will be quantified through Phase II site engineering.

Capital structure is the most consequential variable in determining long-term financial viability. The Phase I analysis models a conventional debt-financed baseline — 70% debt at 6.5% interest — which produces annual debt service of approximately \$291,000 and shifts the fully-loaded breakeven from 2,680 to approximately 3,450 head. Federal grant programs, including USDA's Meat and Poultry Processing Expansion Program, the Local Meat Capacity Grant, and the Resilient Food Systems Infrastructure Program, represent meaningful potential capital that can reduce or eliminate the principal on which interest accrues. The difference between a grant-funded project and a conventionally financed one is not marginal: it determines whether the facility reaches financial sustainability in its early operating years or requires sustained throughput growth to service its debt. Pursuing grant funding is a financial necessity, not a secondary strategy, and grant applications should be among the first deliverables of Phase II.

More details on capital cost development, financing options, and capital structure scenarios can be found in the following sections:

- Preliminary Breakeven Analysis, Sections 6–8 – page 126
- Preliminary Needs Assessment, Section 5: Financing Options and Their Impact on Project Feasibility – page 107

Phase II Priorities and Path Forward

The evidence documented through Phase I establishes a strong community case for a USDA-inspected livestock slaughter and meat processing facility at the proposed Anne Arundel County site. The demand is real, consistent, and well-documented. The market conditions are favorable. The regional processing gap is unambiguous. The decision-relevant community priorities are clearly articulated: co-location of slaughter and processing, quality and traceability, multi-species capability, and a facility managed by a competent private operator. What Phase I does not yet resolve are the questions that will determine whether the project is financially viable and implementable on the proposed site. Those questions are the proper subject of Phase II.

The most critical analytical priorities for Phase II are site engineering and capital cost development, financial pro forma modeling, and operator identification and engagement. Site engineering must resolve the water supply and wastewater management questions that the Phase I site assessment flagged as material constraints, and must produce reliable demolition, site preparation, and construction cost estimates that can serve as the foundation for financial

modeling. The pro forma must address not only capital costs but the operating economics of a multi-species slaughter and processing operation at a scale appropriate to regional demand, incorporating realistic throughput assumptions, staffing requirements, USDA inspection costs, equipment maintenance, and the revenue streams available from slaughter fees, processing fees, value-added services, and potential retail operations. Operator identification should begin in parallel: the stakeholder community was clear that they do not want a government-run facility, and the most viable path to durable operation likely involves a public-private partnership in which public investment in infrastructure is paired with private operational expertise, following the model that SMADC and MARBIDCO employed successfully with Stauffer's Butcher Barn.

The zoning text amendment process should be treated as an urgent parallel workstream, not a sequential one. The longer the amendment process takes, the longer it delays the point at which the project can advance to construction and permitting. Early engagement with the Legislative Committee of the Agricultural Commission, coordinated with the county's legal and planning offices, will be essential to moving that process efficiently. FSIS pre-application consultation should similarly begin early in Phase II, well before facility design is finalized, to avoid costly redesign later.

Workforce development is a challenge the study flagged consistently and that Phase II planning must address directly. The shortage of skilled butchers and meat cutters is a national constraint, not one unique to Anne Arundel County, and it has worsened as the profession has declined and training pipelines have not kept pace with the revival of independent processing. A workforce strategy combining local recruitment, apprenticeship pathways potentially in partnership with Southern High School's FFA program and the University of Maryland Extension, and competitive compensation will need to be developed alongside the facility itself. Infrastructure investment without a labor strategy will not deliver a functional facility.

ANNE ARUNDEL COUNTY RAC OUTREACH SUMMARY

As part of the Anne Arundel Regional Agricultural Center (RAC) feasibility study, Matson Consulting conducted outreach to gather perspectives from community members, producers, and agricultural stakeholders about regional agricultural needs, how the potential RAC could best serve the community, and what role it could play in supporting the livestock and agricultural industry in Southern Maryland. The outreach process included multiple online surveys, a series of interviews conducted via phone call or video conference, and an in-person stakeholder meeting held in Annapolis on March 12, 2026. The following sections provide a detailed overview of the outreach conducted as of March 2026.

Across all three surveys, the full interview series and stakeholder meetings, the findings are consistent and reinforcing. The Southern Maryland agricultural community recognizes a well-defined infrastructure gap, has concrete and articulable needs, and has stakeholders ready to engage with and utilize a Regional Agricultural Center. Demand for USDA-inspected meat processing emerged as the highest-priority need across every survey population, was echoed throughout the interview findings, and was confirmed as the primary community priority at the stakeholder meeting. Commercial kitchen access represents a significant secondary opportunity, particularly for the region's growing base of farm-based value-added producers and food entrepreneurs. The breadth of engagement documented here of more than **110 survey respondents, 15 interviews with 19 stakeholders**, and a stakeholder meeting attended by over **15 community representatives** provides a strong evidentiary foundation for the feasibility analysis that follows.

Outreach Conclusion

On the strength and findings of this outreach, the Anne Arundel Economic Development Corporation has determined to move forward with examining the feasibility of a livestock slaughter and meat processing facility as the primary RAC activity. This decision reflects the clear and consistent demand signal that emerged across every phase of the outreach process. As a next step, the county will work toward proposing the zoning code text amendments necessary to permit slaughter activities on the site, a foundational regulatory action that will need to advance in parallel with the broader feasibility analysis.

SURVEY PROCESS AND FINDINGS

During the course of the feasibility study process, three surveys were developed for distribution to stakeholders to gather information on their interest in the RAC.

- *General Interest Survey* – intended to gather general interest from all stakeholders about what they would like to see from the RAC
- *Livestock Producer Survey* – intended to gather interest from livestock and meat producers and related stakeholders about what they would like to see from a meat-focused facility
- *Commercial Kitchen Survey* – intended to gather interest from producers or food entrepreneurs interested in a commercial kitchen or similar non-meat focused value-added processing

Surveys were distributed through the Anne Arundel County's newsletter, to county representatives from each project county, and individually to various stakeholders during the interview process for further distribution.

Final results as of March, 2026 had **79 responses** to the General Interest Survey, **16 responses** to the Livestock Producer Survey, and **16 responses** to the Commercial Kitchen Survey.

General Interest Survey Key Findings

Respondent Profile

The survey captured a broad cross-section of the agricultural community. The largest respondent groups were vegetable/fruit growers and livestock producers (tied at 29.11% each), followed by community members/consumers (24.05%) and grain growers (22.78%). Nearly half of respondents (47.44%) have been involved in agriculture for more than 20 years, lending strong credibility to the findings. The majority (83.54%) are based in Anne Arundel County itself.

Strong Support for a RAC

Demand signal is high. When asked how important a Regional Agricultural Center would be for the local agricultural economy, 59.72% said "very important" and another 18.06% said "somewhat important". Combined, nearly 8 in 10 respondents see clear value. On likelihood of use, 48.61% said they would be "very likely" to use RAC services, with another 20.83% "somewhat likely."

Top Requested Services

USDA-inspected meat slaughter and processing led all service categories at 54.17%, followed closely by product aggregation and distribution (41.67%), commercial kitchen access for value-added products (37.50%), and grain milling/flour production (34.72%).

Gaps in Current Access

The dominant barrier respondents cited is a simple lack of nearby facilities, identified by 64.06% of respondents. Lack of appropriate facilities for specific needs (34.38%) and limited availability

and long wait times (31.25%) also ranked high, reinforcing that geography and capacity are the core unmet needs in the region.

Perceived Benefits

Respondents overwhelmingly see supporting local farmers as the top benefit (82.09%), followed by expanding market access for producers (41.79%), increasing farm profitability (40.30%), and providing access to livestock processing (38.81%).

Revenue Expectations

Among producers, 48.8% (combining the 11–25%, 26–50%, and 50%+ brackets) anticipate meaningful revenue gains from improved processing access. Of the remaining producers, 30.2% were unsure of the potential impact, while 20.9% expect a modest gain in the 0–10% range.

Willingness to Travel

Most respondents are willing to travel a reasonable distance. 40.58% are willing to travel up to 30 minutes and 36.23% up to 1 hour. This suggests a centrally located facility within Anne Arundel County would serve the majority of the agricultural community effectively.

Value-Added Product Interest

Only 26.32% of respondents currently sell value-added products, but among those who don't, 25.00% said they would be interested in doing so and another 14.47% said "maybe", indicating significant latent demand the RAC could unlock.

Livestock Producer Key Findings

Experienced, Committed Producers

The livestock survey captured a highly experienced group, with 50% of respondents having been farming for 21 or more years, and another 25% for 16 to 20 years. No respondents had fewer than 5 years of experience. The majority are based in Anne Arundel (62.5%) and Calvert (31.25%) counties. Beef, swine, and lamb/sheep are the primary livestock raised, with a growing contingent of poultry producers captured under "other."

Already Selling Meat, But Constrained

Most respondents (68.75%) are already selling livestock as meat products, and all five who are not expressed interest in doing so (66.67% yes, 33.33% maybe). The most common market channel is smaller cuts sold direct to consumers or retailers (35.71%), with another 25% finishing and selling animals live, a channel that often reflects the absence of accessible processing options rather than preference.

Existing Facilities Are Falling Short

62.50% of respondents say existing slaughter and processing facilities do not meet regional needs, with only 12.5% saying they do. Open-ended responses paint a vivid picture of the problem with producers describing year-plus wait times for kill dates, facilities located 90 minutes away that accept only small batches, and a direct financial impact on farm viability. One

respondent noted: the time and cost of travel alone eliminate any profit margin from selling beef off the farm.

The processors currently used — Haass Family Butcher Shop, J.W. Truess, Hoss's (Delaware), Chuck's Butcher Shop, Wagner Meats, Sudlersville, Bowman's Butcher Shop, and Mt. Airy Meat Locker — are well-known to the community but insufficient in capacity and proximity. They include a mix of USDA-inspected and custom exempt facilities, with producers often visiting multiple processors for slaughter and kill services.

Near-Universal Demand for a Local USDA Facility

When asked directly whether they would use a new USDA-inspected multi-species red meat processing facility in Anne Arundel County, 81.25% said yes and 18.75% said maybe. Not a single respondent said no. Every producer surveyed would be willing to travel up to two hours, with the majority (43.75%) comfortable up to two hours and 37.5% up to one hour, a service area that confirms the regional demand base.

Herd Expansion Would Follow

Multiple producers indicated they would expand operations if local processing became available. Responses mention increases of 10–29%, doubling herd sizes, and adding entirely new livestock enterprises (e.g., beef cattle). This points to suppressed production capacity that a RAC could unlock.

Service Needs Are Comprehensive

All 16 respondents selected USDA-inspected slaughtering, meat cutting and packaging, and vacuum packaging as required services. Aging capability and value-added meat processing (smoking, curing, etc.) each garnered support from 56% of respondents.

State of Local Agriculture

68.75% of livestock producers describe the current state of Southern Maryland agriculture as declining, with access to processing facilities identified as the single greatest challenge (selected by 81.25% of respondents), followed by land availability and cost (75%) and labor availability (62.5%). Despite this, 75% view a RAC as "very important" and another 18.75% as "somewhat important", a 93.75% combined favorable rating.

Commercial Kitchen Key Findings

Diverse User Base Anchored by Farmers

Agricultural producers and farmers made up the largest segment of kitchen survey respondents at 68.75%, followed by home cooks (25.00%) and equal representation from community non-profits and food entrepreneurs (18.75% each). This producer-heavy makeup reinforces that the commercial kitchen audience overlaps significantly with the farm community.

Clear Recognition of an Infrastructure Gap

93.75% of respondents said yes, there is a current lack of accessible commercial shared-use or incubator kitchen infrastructure in and around Southern Maryland. This near-unanimous agreement on the problem is a strong foundation for the feasibility case.

Strong Intent to Use

75% of respondents are actively looking for a commercial kitchen, with another 18.75% saying "maybe." On level of interest in a shared-use kitchen specifically, 73.33% said "very interested" and 20.00% "somewhat interested," a combined 93.33% positive interest rate. Only one respondent expressed no interest at all.

Most Are Not Yet Processing

56.25% of respondents are not currently processing their products, and another 31.25% are using a home kitchen. These arrangements are common workarounds in the absence of proper facilities but limit both scale and marketability. Only one respondent works with a co-packer. This suggests the commercial kitchen would serve largely untapped, early-stage production activity.

Business Aspirations Are Full-Scale

Despite many respondents currently operating part-time or not at all, 68.75% described the business they would like to operate as full-time. This gap between current operations and aspirations underscores the RAC's potential as an economic catalyst for food entrepreneurship.

Product Mix Skews Toward Preserved and Value-Added Goods

Jams and jellies led product interest with 50.00% of respondents, followed by low-acid canning and sliced produce (37.50% each), and sauces and condiments, washed produce, and dehydrated products (31.25% each). The top equipment needs; preparation surfaces (80.00%), scales (66.67%), produce wash sinks (60.00%), food processors (53.33%), and slicers (46.67%), are consistent with this produce-forward, value-added orientation.

Weekly Use at Modest Hours

50.00% of respondents anticipate using a kitchen weekly, with 56.25% estimating 1–8 hours per week of use. Demand peaks in fall and summer (aligned with harvest seasons, at 93.75% and 87.50% respectively), and 81.25% said they would be flexible on time of day, suggesting the facility can be efficiently scheduled across a diverse user base without significant scheduling conflicts.

Pricing Sensitivity Is a Design Consideration

The maximum hourly rate most respondents would pay falls in the \$15–\$25 range, with 38.46% capping at \$15 and 30.77% willing to pay up to \$25. Only one respondent indicated tolerance for \$35/hour. This price sensitivity will be an important factor in the RAC's financial modeling and subsidy structure.

Farmers Market Is the Primary Sales Channel

68.75% of respondents sell or plan to sell at farmers markets, the most common channel, followed by retail storefronts (31.25%), and online sales and restaurants (25.00% each). This

aligns closely with the local, direct-to-consumer orientation of the broader agricultural community.

INTERVIEW PROCESS AND FINDINGS

This summary presents findings from stakeholder interviews conducted as part of the Phase I feasibility study for a Regional Agricultural Center (RAC) in Anne Arundel County, Maryland. The study, conducted by Matson Consulting in partnership with the Anne Arundel Economic Development Corporation, engaged **19 stakeholders** representing diverse perspectives across the agricultural sector, county government, and economic development community.

Interview Approach

Between December 2025 and March 2026, Julie Matson and Dylan Timmerman conducted **15** in-depth interviews with **19** individuals using a standardized RAC Interest Interview Protocol. Participants were selected to represent key stakeholder categories including agricultural producers, farm organizations, educational institutions, economic development agencies, and county government officials. Interviews were conducted via phone and video conference, averaging 30 to 60 minutes each, and followed a structured protocol designed to gather perspectives on regional agricultural needs, potential RAC services, implementation considerations, and critical success factors.

The interview process captured input from twelve respondents representing producers and potential operators, agricultural organizations, government and economic development agencies, and educational institutions. This diverse stakeholder group provided complementary perspectives on the current state of agricultural infrastructure in Anne Arundel County and Southern Maryland, gaps in available services, and the potential role of a Regional Agricultural Center in addressing identified needs.

Common Themes

General responses from survey participants indicated strong interest in establishing a Regional Agricultural Center to provide assistance to farmers in Anne Arundel County and Southern Maryland. While stakeholders identified various needs across the agricultural value chain, perspectives coalesced most clearly around two primary facility types: a meat slaughter and processing facility, and a commercial kitchen for production of value-added products. All participants expressed interest in furthering the conversation through follow-up focus groups or community meetings, indicating genuine engagement with the concept and willingness to contribute to its development.

The study captured valuable perspectives from producers at different stages of agricultural enterprise development. Anna Chaney, a full-time farmer at Honey's Harvest Farm who also serves on the Anne Arundel County Agriculture Commission, emphasized the critical need for regulatory assistance and a governmental liaison to help navigate permitting and certification processes, a challenge she identified as particularly acute for small-scale producers. Peter Jacobs of Open Barn Farm, who is actively developing his own processing facility with detailed business plans and market analysis, expressed strong interest in potentially operating or

partnering with the RAC, demonstrating concrete private sector interest and operational expertise that could inform facility design and management.

These producer interviews reinforced several key themes that emerged across the broader stakeholder group: the need for grain milling capacity to support artisanal flour and feed production; demand for educational programs in regenerative agriculture and sustainable farming practices; recognition that successful implementation would require active private sector engagement in facility management and operations; and the importance of establishing clear pathways for regulatory compliance and business development support alongside physical infrastructure.

Interview Key Findings

Key Needs Identified:

- Lack of nearby processing services in general; many services out of state
- Livestock producers want slaughter and processing *at the same* location as many are already traveling to two different locations for each service
- Farm size in the area is typically small and many were formally tobacco farms
- Farmers lack specialized equipment for value-added production because the sizes of the farms are small – Carrot chipping, meat flash freezing, etc.
- There is a lack of awareness in some parts of the county about the farm products in the southern part of the county
- Need for a governmental liaison or satellite office to help farmers navigate permits, regulations, grants, and certifications

Most Valuable Services:

The following ideas were met with approval from most all of the respondents:

- Meat Processing/Slaughter
- Commercial kitchen

Secondary common needs mentioned:

- Cold Storage
- Cannery

Benefits Emphasized:

- RAC would help keep farmland in production
- Cattle and other livestock production would increase if there was a more efficient slaughter/meat processing facility locally
- Will make the CLFF program more successful. The goal of CLFF is to have government institutions like schools and correctional institutions get 20% of their food needs from

local sources. Farmers do not have access to provide the food under the safe food regulations required due to lack of equipment and processing access.

Barriers/Challenges Mentioned:

- The facility will need to consider surrounding residential and ensure adequate buffers are established.
- The location of the grain elevator is about one mile from a residential area/mobile home park and that could be advantageous for jobs or a nuisance to many residents if you put in a slaughterhouse/meat processing facility.
- Small farms have trouble navigating the regulatory demands of the local, state, and federal rules
- Cost of land and labor are exceedingly high in the area
- Workforce shortages for skilled butchers

Success Factors:

- Management of the RAC affects success probability – In general, the respondents did not wish the government to run the project as it gets established even if they think it may be needed in the beginning.
- It was anecdotally noted that if a meat processing facility were to be built, the quality and trust factor would have to be high because the farmers will continue to travel out of state if it is less than they expect in quality and service.
- The location being close to so many population centers provides a recipe for success.

Additional Services/Ideas Suggested:

- Two respondents mentioned deer population is problematic to farmers and if there would be a place to process deer meat, it could provide food for those with food insecurity and also assist the farmers
- It was suggested to view the project as a “campus” model so there are multiple projects perhaps managed and run by different individuals or groups.
- Two mentioned fishing industry suggestions such as blue catfish.
- Business incubator support for farmers adding commercial kitchens to their own properties
- Educational programs in regenerative agriculture and organic farming practices
- Grain milling capacity for boutique/artisanal flour production to support small-scale specialty grain farmers

List of Individual Respondents

#	Name	Organization	Date of Interview
1	Deana Tice	Anne Arundel County Farm Bureau	1/22/2026
2	Dave Myers	University of Maryland Extension Anne Arundel County	1/13/2026
3	Stacy Eckels	FFA Advisor Southern High School	12/22/2026
4	Steve McHenry	MARBIDCO	12/22/2026
5	Mark Wedemeyer	Anne Arundel County Inspections and Permits Director	1/26/2026
6	Jenny Dempsey	Anne Arundel County Planning and Zoning Director	1/16/2026
7	Michael Stringer	Anne Arundel County Agriculture Preservation and Woodland Director	1/14/2026
8	Council Member Shannon Leadbetter	District 7 County Council Woman	1/23/2026
9	Kevin Atticks, Martin Proulx, Harrison Palmer	Maryland Department of Agriculture	1/12/2026
10	Shelby Watson-Hampton, Craig Sewell	Southern Maryland Agriculture Development Commission	1/20/2026
11	Anna Chaney	Anne Arundel County Agriculture Commission / Honey's Harvest Farm	2/3/2026
12	Peter Jacobs	Open Barn Farm	2/4/2026
13	Bobby Rossback	Locust Farm	2/20/2026
14	Mark Hopkins, Steve Hopkins	Hopkins Family Farm	2/25/2026
15	Gerardo Martinez	Wild Kid Acres	4/29/2026

IN-PERSON OUTREACH AND ENGAGEMENT

The survey and interview phases of the outreach process were supplemented by two forms of in-person engagement: a stakeholder convening held at the Anne Arundel Economic Development Corporation offices on March 12, 2026, and a site visit to the proposed RAC location. Together, these activities brought the outreach process full circle, providing an opportunity to validate and deepen the findings gathered through surveys and interviews and to assess existing site conditions firsthand.

Stakeholder Meeting – March 12, 2026

On March 12, 2026, Matson Consulting facilitated a two-hour stakeholder meeting at the Anne Arundel Economic Development Corporation offices in Annapolis. Of the **29 stakeholders** invited approximately **15 attended in person**, joined by members of the AAEDC client team. Invitees were drawn from the pool of survey respondents and interview participants who indicated interest in participating in follow-up discussions.

The meeting served as a structured findings review and discussion session organized around three primary topic areas: community needs and priorities, what it would take to make the RAC viable, and issues and challenges to implementation. The session confirmed and enriched the findings documented through surveys and interviews. Key themes that emerged or were reinforced during the discussion are summarized below.

Zoning and Regulatory Barriers Are Significant

A central topic of discussion was the current regulatory environment in Anne Arundel County. Participants noted that currently slaughter is permitted under certain circumstances but a facility on the Lothian site would require a zoning change to allow for it. The Legislative Committee of the Agricultural Commission would be appropriate to review and advise on zoning changes. The site's non-farm designation was also identified as a potential complicating factor for certain agricultural uses. Separate legislative amendments to accommodate multi-use operations on the property were also identified as necessary, as the county has historically held that grain milling and fertilizer operations could not be conducted simultaneously on site.

The current septic and well infrastructure on site, combined with the absence of any near-term plans to extend municipal water and sewer service, raises questions about the facility's capacity to handle the effluent and water treatment demands of meat processing. This is a challenge that existing regional facilities have navigated, but one that requires careful engineering and planning. Participants noted that the county is exploring expansion of a nearby wastewater facility that could potentially serve the site.

Co-Location of Slaughter and Processing Is Non-Negotiable

Strong consensus emerged that slaughter and processing must be co-located for the facility to serve producers effectively. Stakeholders noted that producers are already traveling to separate facilities for these services; an arrangement that adds cost, time, and logistical burden. If co-location is not feasible at the RAC site, participants agreed that the facility itself should take responsibility for coordinating and scheduling carcass transport between a slaughter house and the processing floor, as that was identified as the only arrangement that would give producers sufficient confidence in the process. Traceability was a particular concern: stakeholders

emphasized that farmers need assurance they will receive their own animal back through the processing chain, and that additional handoffs in the supply chain increase the risk of mix-ups and erode trust.

Quality and Trust Must Come First

Consistent with interview findings, meeting participants emphasized that the quality of the facility and its services will be determinative for producer adoption. Producers described specific unmet needs such as slaughterhouses that accept grass-fed and grass-finished animals and produce high-quality finished products, facilities that handle sheep and lamb alongside beef and swine, and consistent access to services like vacuum packaging, smoking, curing, and specialty cuts such as sausage. Multiple producers noted that poor quality or a broken chain of custody would send them back to traveling out of state, negating the facility's purpose. First impressions matter: stakeholders noted that if the facility opens with substandard results, rebuilding producer confidence would be an uphill challenge.

Revenue Potential and Business Model Considerations

Participants discussed the revenue potential of various facility components. A retail butcher operation was raised as a meaningful revenue driver, with a well-run retail shop generating meaningful customer traffic and brand recognition for the facility, though opinions were mixed given the site's distance from high-traffic corridors. Blue catfish processing was identified as a significant and underserved regional opportunity. With only four or five USDA-inspected fish processing operations in the state, local demand significantly exceeds available supply.

The market for charcuterie and cured meat products was noted as a strong growth area with favorable margins. Participants also raised concern about the absence of offal processing infrastructure in the region following the recent closure of the last remaining local provider, a gap that represents both a challenge for facility viability and an opportunity if addressed.

The Campus Model and Complementary Uses

Participants discussed the idea of using the site as a "campus model", with the RAC as a hub accommodating multiple co-located services potentially operated by different entities. However, the sentiment raised was that educational uses would not be appropriate if slaughter is occurring on-site.

Proposed complementary uses included agricultural agency offices (Farm Bureau, FSA, county extension, and 4-H); a farm education and demonstration space; an agricultural business incubator in coordination with a commercial kitchen; continued fertilizer distribution; and small-batch grain drying and milling for specialty markets.

Participants noted that Montgomery County's Office of Food Systems Resilience had recently issued a notice of funding availability to identify an operator for an aggregation center, offering a potential model for how the RAC's aggregation and distribution function might be structured. The Culinary Square, a food business accelerator expected to open in Anne Arundel County in the coming year, was also cited as a complementary resource that could reinforce the commercial kitchen component of the RAC and support food entrepreneurs seeking a pathway to wholesale markets.

Skilled Labor

Workforce availability, particularly the shortage of skilled butchers and meat cutters, was raised as a persistent challenge that the feasibility study will need to address directly. This finding is consistent with what emerged through both the survey and interview phases, reinforcing that infrastructure investment alone will not be sufficient without a parallel strategy for workforce development and recruitment.

Site Visit

In conjunction with the March 12 stakeholder meeting, Matson Consulting conducted a site visit to the proposed RAC location in Anne Arundel County. Dylan Timmerman met on site with Mike Davis, Facility Lead with Anne Arundel County, who oversees the property and manages its existing structures.

The site's most prominent existing feature is a grain mill and elevator complex that has been closed for approximately two years. Anne Arundel County is currently maintaining the structure to prevent further deterioration, and some repair work has been completed on the silos. However, much of the operational equipment, including the milling machinery and scales, is no longer functional. The assessment from the site visit is that the existing facility would need to be fully demolished and cleared before meaningful redevelopment could proceed. Demolition and site clearance represent a real cost that will need to be factored into the feasibility analysis as a near-term capital requirement and potential limiting factor in project timing.

In terms of utilities and access, the site is served by a private well and septic system; no municipal water or sewer service is available and no regional plans are currently in place to extend those services to the area. The site does have electrical power access. It is located in a rural setting with proximity to a major roadway, providing reasonable transportation access for producers and commercial vehicles. There is no rail access. While there are some residential properties in the vicinity, the prior use of the site as a grain mill generated substantial dust and noise. This provides a degree of precedent for agricultural and light industrial activity at the location, which may be relevant to future zoning and land use discussions.

RISKS, REGISTRATION, AND REGULATIONS

This regulatory guidance document has been prepared to support the development of a Regional Agricultural Center (RAC) in Anne Arundel County, Maryland. The RAC is envisioned as a shared-use facility providing value-added agriculture infrastructure to serve producers across five Southern Maryland counties: Anne Arundel, Prince George's, Calvert, Charles, and St. Mary's. The RAC outreach process identified demand that could support activities such as meat slaughter and processing, commercial kitchen, and general value-added processing services, but regulatory and financial constraints must be considered during Phase II to determine ultimate use.

The facility will address documented gaps in regional processing capacity, particularly the limited availability of USDA-inspected meat processing and commercial kitchen space for value-added agricultural products. By providing shared infrastructure, the RAC enables individual farmers and producers to access professional-grade processing equipment and regulatory-compliant facilities without the capital investment required for individual facility development.

This document provides comprehensive information on the regulatory environment, business risks, and operational considerations relevant to establishing and operating the RAC. It is organized to address both general requirements applicable to all food processing operations and specific regulations governing meat processing and value-added agriculture in Maryland.

How to Use This Document

The document is structured in six main sections:

- **Section I: Business Risks** identifies potential financial, operational, and market risks that could affect the RAC's viability
- **Section II: Meat Processing Regulations** details USDA/FSIS inspection requirements, Maryland state meat processing oversight, and labeling standards specific to red meat products
- **Section III: Value-Added Processing Regulations** addresses Maryland Department of Health licensing for non-meat value-added products, multi-county regulatory coordination, and state-specific infrastructure requirements
- **Section IV: Federal Food Safety Requirements** covers HACCP, SSOP, GMP, FDA oversight, FSMA compliance, traceability, and food handling regulations applicable to all processing operations
- **Section V: Business & Legal Requirements** addresses business formation, registration, taxation, intellectual property, insurance, and consumer protection obligations
- **Section VI: Workplace & Environmental Compliance** covers labor regulations, workplace safety (OSHA), environmental compliance (EPA), and utility infrastructure requirements

Section I provides essential context on business risks that inform facility planning and operational decision-making. Users should consult Section II for meat processing regulations or Section III for value-added product regulations depending on the RAC services being utilized. Section IV provides federal food safety requirements applicable to both types of processing. Sections V and VI cover business formation, legal compliance, workforce, and environmental requirements.

Disclaimer

It is the responsibility of the owner of a business to become familiar with the federal, state, county, and local laws governing his or her business. Failure to do so may result in penalties, fines, and ultimate cessation of business. The following sections are intended to provide a general overview to highlight possible considerations that could affect a business and are not intended to be exhaustive.

This document reflects federal, state, and local regulations as of the date of publication. Regulatory requirements are subject to change, and facility operators should verify current requirements with applicable regulatory agencies before making business decisions or capital investments.

Section I: Business Risks

The development and operation of the Regional Agricultural Center involves numerous business risks that should be carefully evaluated during feasibility analysis and operational planning. While many of these risks are difficult to quantify precisely, understanding them enables facility planners and operators to make informed decisions about risk mitigation strategies, insurance coverage, capital reserves, and operational policies.

This section identifies eleven primary risk categories relevant to the RAC's development and operation. Each risk area should be considered during facility design, business model development, financial planning, and ongoing management. The RAC's shared-use model introduces both traditional agricultural processing risks and unique considerations related to serving multiple users, managing diverse product types, and coordinating regulatory compliance across different processing activities. The following risk categories warrant particular attention in RAC planning:

- **Capital Risks**

The project will continue to require capital outlay. Obtaining and operating processing equipment represents a significant expense at the venture's outset, and insufficient access to capital funds is a common reason for new businesses to fail. The assumptions in this study do not include much leeway for unexpected cost overruns that could endanger the venture.

- **Cash Flow Risks**

Price changes, volume sold, or accounts receivable turnover, for example, could seriously affect the venture's cash flow. Additional cash beyond that generated by the operation may be needed to supplement operations. The processing facility will be wholly dependent on customers sourced by the owners, which directly affects the amount of product the business can process and sell.

In addition, the construction necessary for the operation may need significant build-out or equipment requirements. Costs such as these will be incurred during a time when the facility will not be generating significant revenue. The owners should carefully manage costs and source sufficient funds to cover this build-out period until revenue can be generated from operations.

Finally, there may be periods during the year that the venture experiences negative cash flow. This should be closely monitored for business liquidity. A small change in price or payment period could quickly turn a profit into a loss or exacerbate this cash flow risk.

- **Management Experience Risks**

Businesses can “fly or die” based on management caliber. Management must have experience in the industry. The selection and oversight of management, both at the business as well as the operational level, are critical for the success of the venture.

- **Legal Liabilities and Risks**

The venture will face legal liabilities and potential risks due to the nature of the product, visitor risk, transport of the product, worker safety, and environmental risks. Since the business will produce and sell products intended for consumption, they will need to address any potential legal risks that could arise. Risk should be reduced with insurance and written policies where possible.

- **Regulatory Risks**

There are many regulatory risks the venture will need to continue to address as it moves forward. There is a potential that these factors could substantially constrict the ability of the venture to operate profitably. Additionally, some regulations are in constant flux; statutes that may not affect the operation today could have a dramatic impact on it in the future. For example, environmental regulations for production might change, labor and farm operation regulations may change, and changes enacted in the regulatory framework of red meat products could affect the entire organization of the sector within the state.

- **Operational Risks**

Due to the newness of the expansion, several operational issues that do not proceed along the lines of the assumptions of this study could occur. The quality of the company’s products is highly dependent on the skill of the processing manager, the practices implemented, and sales are in turn dependent on the owners reaching the business’s target market.

The owners could face operational risks in equipment handling and processing if human resources are not enough to cover the minimum management requirements. For example, if the quality of the equipment, or product handling is not in compliance with state and federal regulations, it could risk the failure of the whole operation.

- **Market Development Risks**

There is no guarantee that the venture will succeed in capturing sufficient buyers to purchase its products. It is assumed that consumers have a tangible interest in the new local red meat products; this may not be a true assumption.

The proposed image for the expansion is based on a minimum promotional strategy budgeted and explained in the study, but there is still a risk that the activities proposed may not be sufficient to support the sales strategy.

- **Price Risks**

There is no doubt that the consumer is becoming increasingly interested in how and where food is produced. While it is more likely that a higher price can continue to be obtained for humanely slaughtered, locally sourced and processed red meats, there is no guarantee. The specialty product market in general experiences greater price stability than the commodity market; however, the same factors can cause price variations and lead to a loss of revenue from processed meat products.

- **Food Contamination Risks**

Food contamination is always an area of concern in the agricultural industry but is of even greater concern with the slaughter and handling of meat products. Bacterial contamination may occur, causing illness, product recalls and damage to the brand. Even being associated as one step in the processing chain can have negative consequences, whether or not the facility itself was the cause of contamination.

Care should also be taken if product is supplied to retail outlets for sale to the public. Careless handling techniques by the retailer could also cause the risks previously mentioned.

- **Production Risks**

If the venture experiences issues due to animal health or contamination, the venture may need to discontinue production temporarily. Because the facility only generates revenue when in production, this could cause significant financial issues.

- **Inventory Risks**

An inventory of perishable products brings its own set of risks. If sales are lower than expected, inventory may increase, spoil, and need to be disposed of. If negative cash flows occur, then the venture may not be able to comply with short-term obligations. While the product could be frozen, the operation would require the owners of the venture to buy additional freezing equipment not anticipated at this time.

Section II: Livestock Slaughter and Meat Processing Regulations

This section details regulatory requirements specific to livestock slaughter and meat processing operations, including USDA/FSIS inspection, Maryland state oversight, and meat-specific labeling standards.

**NOTE* Local zoning code governs the uses allowed on a parcel of land. Depending on the ultimate uses in a RAC, local zoning may need to be changed.*

Livestock Slaughter and Meat Processing Regulatory Agencies in Maryland

In Maryland, livestock slaughter and red meat processing are regulated through state-level agencies such as the Maryland Department of Agriculture (MDA) and the Maryland Department of Health (MDH). Both agencies play critical roles in ensuring that meat production and sales meet safety, health, and welfare standards.

Maryland adheres to federal guidelines established by the United States Department of Agriculture (USDA) for meat and poultry inspection. USDA inspectors play a significant role in Maryland's meat industry, especially in facilities where meat products are distributed across state

lines. In such cases, USDA's Food Safety and Inspection Service (FSIS) oversees the inspection process.

Smaller, custom-exempt slaughterhouses in Maryland are regulated differently. These facilities process meat for personal use and are not inspected on the same level as commercial processors, as long as the meat isn't sold. However, they must still meet basic state safety standards. Retail exempt facilities, which sell processed meat directly to consumers, must meet stringent safety and sanitation guidelines, but are not subject to continuous inspection as long as the meat isn't sold for wholesale distribution.

Maryland Department of Agriculture (MDA)¹



The Maryland Department of Agriculture (MDA) is responsible for regulating the welfare and health of livestock in Maryland. They focus on disease prevention, livestock health inspections, and animal welfare. Livestock health is crucial not only for the animals but for the safety of the food supply. The MDA enforces regulations regarding livestock care, ensuring that animals are raised and treated humanely before and during the slaughtering process. The department also oversees vaccination programs, disease surveillance, and biosecurity measures to prevent outbreaks such as avian influenza, foot-and-mouth disease, and other livestock-related diseases.

Key Responsibilities of MDA:

- Disease control and prevention among livestock.
- Promoting humane treatment and animal welfare standards in farms and facilities.
- Conducting inspections and certifications for livestock farms and related businesses.
- Collaborating with federal agencies like the USDA to implement state and national livestock standards.

Maryland Department of Health (MDH)²



The Maryland Department of Health (MDH) works closely with MDA but focuses more on food safety and public health in relation to meat processing and sale. Their role includes inspecting meat processing facilities to ensure they adhere to food safety regulations, such as proper handling, storage, and sanitation during the slaughtering and processing stages. These inspections are vital for preventing contamination and ensuring the meat that reaches consumers is safe for consumption.

The MDH also enforces labeling standards, ensuring that consumers receive accurate information regarding the origin and processing of their meat products. Facilities processing meat for commercial sale within the state may be subject to regular health inspections to ensure compliance with both state and federal guidelines.

Key Responsibilities of MDH:

- Inspecting slaughterhouses and meat processing plants.
- Ensuring compliance with sanitation, labeling, and food safety regulations.

¹ MDA. <https://mda.maryland.gov/Pages/Regulatory-Information-Center.aspx>

² MDH. <https://health.maryland.gov/phpa/OEHFP/OFPCHS/pages/food-processing.aspx>

Anne Arundel RAC Feasibility Study Phase I

- Certifying meat products are safe for consumption and free of contaminants.
- Coordinating with the USDA's Food Safety and Inspection Service (FSIS) for federally inspected facilities.

USDA



The United States Department of Agriculture (USDA) is responsible for overseeing federal policy regarding farming, agriculture, and food products. Distribution, labeling and packaging, quality, recalls, safety, and security are all functions governed by the USDA. Regulations and requirements of the USDA must be met in order to be in compliance with applicable laws.

FSIS



The Food Safety and Inspection Service (FSIS) is the public health agency in the U.S. Department of Agriculture responsible for ensuring that the nation's commercial supply of meat, poultry, and egg products is safe, wholesome, and correctly labeled and packaged.

Due to the existing public concern over the outbreak of listeria bacteria in ready-to-eat meat and poultry products, The Food Safety and Inspection Service (FSIS) has removed sodium benzoate, sodium propionate and benzoic acid from a list of prohibited substances. These substances were included on the prohibited substances list because, when used at certain levels, they have the potential ability to conceal damage or inferiority in meat products sold to the public. After reviewing various data sets, the FSIS believes that the benefits of these substances as antimicrobial agents outweigh the prior concern that they will be used to conceal inferiorities in meat products. This rule was amended in 2013.

Humane handling practices are also covered by the FSIS. Because the facility intends to be certified organic, and in general the organic handling standards are even more restrictive than general handling requirements, the facility can be considered to have addressed this issue.

Federal-State Inspection Act (Talmadge-Aiken Act)

Maryland is *not* one of the states that fall under the jurisdiction of the Talmadge-Aiken Act; thus the act *does not* apply to the discussed processing facility.³ The Federal-State Inspection Act, also known as the Talmadge-Aiken Act was signed into law in September of 1962. This act allows state inspectors to also conduct federal inspections at facilities located in rural areas. The purpose of this act is to provide federal inspection services in remote locations while also reducing the travel costs of assigning federal employees to these rural plants.

Products that pass inspection by state employees under the Talmadge-Aiken Act are granted federal marks of inspections. State inspectors who conduct federal inspections under the Talmadge-Aiken Act are working on behalf of the federal Food Safety and Inspection Service (FSIS) and as such any appeals of these state inspectors are directed initially to the FSIS instead of state regulatory offices.

³ Code of Federal Regulations. 7 U.S.C. Section 450. <https://legislation.lawi.us/talmadge-aiken-act/>

Packers and Stockyards Act⁴

The Packers and Stockyards Act oversees competition and trade practices within the overall livestock and poultry sectors. Its goals include:

- Assuring fair competition and trade practices
- Safeguarding farmers and ranchers
- Protecting consumers
- Protecting livestock, meat, and poultry industry members from unfair, deceptive, unjustly discriminatory, and monopolistic practices

The following is a fact sheet on the PSA provided by the USDA AMS
<https://www.ams.usda.gov/sites/default/files/media/PSActFactSheet.pdf>

The PSA regulates and investigates everyone from the small livestock trader to multinational companies involved with livestock and poultry and will prosecute when necessary.

Formal questions can be directed to:

Packers and Stockyards Administration
Eastern Regional Office
75 Ted Turner Drive SW, Suite 230
Atlanta, GA 30303
Telephone 404-562-5840
FAX 404-562-5848
E-mail: PSDAtlantaGA@usda.gov

The Atlanta office will either respond to their inquiry or forward it to the field agent responsible for Maryland.

Section III: Value-Added Regulatory Environment

This section addresses Maryland Department of Health licensing for non-meat value-added products, multi-county regulatory coordination, and state-specific infrastructure requirements.

The proposed Regional Agricultural Center will serve producers across Maryland. Maryland's value-added agriculture sector operates within a multi-layered regulatory environment involving federal, state, and local agencies. The Maryland Department of Agriculture's October 2025 "Statewide Guidance and Analysis" identifies significant regulatory challenges affecting value-added processors, particularly the complexity of navigating requirements that vary across jurisdictions. Understanding this landscape is essential for RAC planning, as the facility will need to accommodate users subject to different county-level regulations while maintaining state-level compliance.

State-Level Processing Licenses for Non-Meat Products

The Maryland Department of Health (MDH) Office of Food Protection oversees most non-meat value-added food processing through several licensing pathways. For a commercial shared-use

⁴ Packers and Stockyards Act. <https://www.ams.usda.gov/sites/default/files/media/PSAct.pdf>

facility like the RAC, the relevant license category is the Processing License (Processing Plant), which requires full commercial facility standards.

Processing License Requirements

The standard Processing License represents commercial-grade food manufacturing authorization. Key requirements include:

- **Commercial facility standards:** Dedicated processing space with commercial-grade equipment, proper ventilation, adequate lighting, and food-safe surfaces
- **Wastewater management:** Proper waste disposal systems and wastewater treatment meeting state and local requirements
- **Water supply:** Access to potable water meeting Safe Drinking Water Act standards; operations serving 25+ people daily for 60+ days/year are considered public water systems requiring compliance monitoring
- **Sanitation protocols:** Written sanitation standard operating procedures (SSOPs), cleaning schedules, and documentation
- **Food safety plans:** HACCP or other food safety plans depending on product types (see Product-Specific Requirements below)
- **Regular inspections:** MDH conducts routine inspections; facilities must maintain compliance with state food processing regulations
- **Product labeling:** All products must comply with FDA labeling requirements including ingredient lists, allergen declarations, net weight, and manufacturer information

Product-Specific Food Safety Requirements

Different product categories trigger different regulatory requirements and determine which licensing pathways are available. The RAC must accommodate these varying requirements in facility design and user operations:

- **Acidified Foods (pH 4.6 or below):** Pickles, salsas, hot sauces, and similar products require TWO certifications: (1) An FDA-approved process authority must develop and approve the acidification process, and (2) the facility operator must complete acidified food operator certification training. These products can only be made under Processing Licenses or On-Farm Home Processing Licenses with proper certification—Cottage Food operations cannot produce acidified foods.
- **Low-Acid Canned Foods:** Products that are heat-processed in sealed containers and have a pH above 4.6 require Processing Licenses regardless of sales model. These cannot be produced under Cottage Food or On-Farm Home Processing due to botulism risk. Examples include canned vegetables, soups, and meat products.
- **Products Containing Seafood:** Any value-added products incorporating seafood automatically require Processing Licenses and cannot be made under home-based licensing pathways. This includes seafood dips, crab cakes, fish spreads, and similar products.
- **Potentially Hazardous Foods:** Foods requiring refrigeration for safety (dairy products, fresh meats, prepared salads with protein, etc.) cannot be produced under Cottage Food licenses and have limitations under On-Farm Home Processing. These products require commercial-grade refrigeration, temperature monitoring, and Processing License compliance.

- **Non-Potentially Hazardous Foods:** Shelf-stable products like baked goods (without cream fillings), jams, dried herbs, honey, and certain candies have the most licensing flexibility and can be produced under Cottage Food, On-Farm Home Processing, or Processing Licenses depending on scale and sales channels.

The RAC should design commercial kitchen spaces to accommodate the highest-risk product categories (acidified foods, low-acid canned foods) while maintaining flexibility for producers making simpler products. Staff should be trained to assess user product plans and identify required certifications, process authorities, and licensing pathways before production begins.

MDH generally expects that operations holding Processing Licenses direct at least 51% of products toward wholesale distribution, though this is not an absolute requirement. This expectation creates a significant navigation challenge for value-added processors:

- **Direct-to-consumer producers:** Processors primarily selling at farmers markets, farm stores, or through CSAs may be redirected by MDH to seek local health department "food service facility" licenses instead of state Processing Licenses
- **Geographic limitations:** Products made under state Processing Licenses can be sold anywhere in Maryland, but local food service facility licenses may restrict operations to specific jurisdictions or counties
- **Agency confusion:** Producers often receive different guidance from MDH versus local health departments about which licensing pathway is appropriate for their business model
- **Growth constraints:** Processors starting with local licenses may struggle to transition to state licenses as they scale, requiring facility modifications or relocation

The RAC should establish clear intake processes to help users identify the appropriate licensing pathway based on their sales model, growth trajectory, and geographic market. Partnerships with both MDH and local health departments will be essential to avoid misdirecting users into licenses that limit their market access.

Multi-County Regulatory Coordination Challenges

As a five-county regional facility, the RAC faces unique regulatory coordination challenges. Maryland's 24 counties and Baltimore City maintain varying definitions and requirements for agricultural activities, creating inconsistencies that affect RAC users.

Zoning and Land Use Variations

- Only 14 of 24 Maryland jurisdictions define "farm" in zoning code, each with different definitions and acreage minimums ranging from 3 to 25 acres
- Only 15 of 24 counties define "agritourism" in their zoning codes
- "Agriculture" or similar terms appear in only 20 of 24 local zoning codes
- Some state regulations require operations to be conducted "on a farm," but local definitions of what constitutes a farm vary significantly

This definitional inconsistency creates challenges for RAC users who may qualify as "farms" in one county but not in another, potentially affecting their eligibility for certain state programs or licenses.

Cross-County Sales and Sampling Regulations

A significant regulatory hurdle for RAC users involves selling and sampling products across county lines:

- **State-licensed processors:** Products made under state Processing Licenses can be sold statewide, but sampling or serving at farmers markets requires separate temporary permits from each jurisdiction
- **Local food service licenses:** Producers with local health department food service facility licenses may face restrictions on operating across county lines
- **Farmers market participation:** Each county maintains its own temporary food facility permitting process with varying costs, requirements, and timelines
- **Mobile units:** Some license types allow "Producer Mobile Farmers Market Unit" permits for transporting products to markets, but requirements vary by jurisdiction

The RAC should consider developing guidance materials to help users navigate county-specific requirements for selling products across the five-county region.

The "Commercial" vs. "Agricultural" Regulatory Paradox

A fundamental conceptual tension underlies Maryland's value-added agriculture regulations and directly affects the RAC's positioning. The word "commercial" appears in statutory definitions of agriculture at the state level, yet agriculture and "commercial" activities are treated as opposites in local land use regulation.

The Core Problem:

- **State perspective:** Agriculture is inherently a commercial industry. Maryland farmers must be able to plant, grow, harvest, process, and sell their crops to stay in business. Value-added processing is a logical extension of agricultural production.
- **Local land use perspective:** Agricultural and commercial uses are separate, often mutually exclusive zoning categories. Processing, retail sales, and public access are classified as "commercial" activities restricted or prohibited in agricultural zones.
- **Result:** Farmers attempting to add value to their agricultural products find themselves reclassified as "commercial" operators subject to requirements designed for urban retail businesses—paved parking, commercial septic, permanent bathrooms, stormwater management, and other costly infrastructure.

Practical Manifestations:

- A farm selling raw produce from a roadside stand = agricultural use (permitted)
- Same farm selling jams made from that produce = commercial use (may require special permits, rezoning, or be prohibited)
- Farm hosting school tours of fields = agricultural education (permitted)
- Same farm hosting tours plus serving farm products = agritourism/commercial (triggers different requirements)

RAC Implications:

The RAC itself embodies this tension—it is agricultural infrastructure designed to support farming, yet it provides commercial processing services. RAC planning must navigate this paradox:

- **Zoning strategy:** Position the RAC as agricultural support infrastructure rather than a commercial processing plant, emphasizing its role in supporting regional farming economies
- **Stakeholder messaging:** Frame value-added processing as an essential component of modern agricultural viability, not a departure from farming

- **Regulatory engagement:** Work with MDA to clarify that processing farm products IS agriculture, not a separate commercial activity requiring different regulatory treatment
- **Infrastructure design:** Where possible, utilize agricultural building codes and exemptions rather than defaulting to commercial standards (see Building Code Considerations below)

Understanding this fundamental tension helps explain why Maryland's value-added agriculture sector faces such complex regulation, as it exists at the intersection of conflicting regulatory philosophies that have not yet been reconciled at the policy level.

Seasonal Operations and Infrastructure Scalability

A critical gap in Maryland's current regulatory framework involves the lack of recognition for "seasonal" operations. State regulations offer only "temporary" (typically 90 consecutive days maximum) or "permanent" categories, with no intermediate classification for businesses operating seasonally over 4-6 months.

Infrastructure Requirements

- **Bathroom facilities:** Permanent bathroom requirements apply regardless of business size or seasonal nature. The 2025 Maryland General Assembly enacted HB 559 allowing certain food establishments to use portable chemical toilets, though implementation guidance is still developing
- **Septic systems:** Requirements based on building occupancy capacity often exceed actual usage needs for seasonal operations; some operations report installing septic capacity serving 4x their permitted occupancy
- **Water systems:** "Water under pressure" requirements from building codes may apply even for seasonal food service, though specific thresholds are not clearly defined
- **Parking:** Some jurisdictions classify grass fields used seasonally for parking as "impervious surfaces" triggering stormwater management requirements

The RAC's infrastructure should be designed to accommodate varying scales of usage while meeting full-time commercial facility requirements. Operational planning should consider how to efficiently scale utilities, staffing, and facility access to match seasonal demand patterns typical in agriculture.

Section IV: Federal Food Safety Requirements

This section covers fundamental principles and federal requirements applicable to all food processing operations conducted at the RAC, whether meat processing or value-added products.

The production of safe, high-quality products is of primary concern to the owners of the project. Food safety begins with an appreciation for cleanliness through the entire supply chain. Good agricultural practices, an understanding of microbiology, good manufacturing practices, safe procedures for cleaning and sanitizing, and a thorough understanding of the principles of Hazard Analysis and Critical Control Point (HACCP) development all matter to the project.

Sanitation Standard Operating Procedures (SSOP)

The USDA mandates SSOP for meat and poultry operations as of 1997. The regulation requires that procedures be developed to outline sanitary practices to prevent contamination of meat and poultry products. These procedures include written steps for cleaning and sanitizing all areas and

equipment and include sanitation guidelines for before and during processing. All procedures must be appropriately documented and validated. Purdue University Extension provides a helpful document, “SSOP and FMP Practices and Programs”⁵ on further information about SSOP.

Good Manufacturing Practices

Good Manufacturing Practices (GMP) has two meanings when used in the context of a food processing facility. The first refers to actual federal code sections of GMPs and the second is a set of operating procedures based upon these codes. The actual codes provide the basis for both the federal and state food processing regulations that serve as guidance for facility construction, equipment and utensil selection, sanitation, personnel hygiene, food handling, and production and processing controls. These are contained in the Good Manufacturing Practices as detailed in Title 21 of the Code of Federal Regulations Subpart E-- Production and Process Controls. The CFR is accessible online via www.ecfr.gov.

While these GMPs are generic, it provides an excellent overview of most facets of sanitary facility operation. Once understood, a facility operator can use these codes to develop GMPs for their own facility. A typical GMP program consists of several parts, each of which has a written set of policies and a checklist based upon those policies.

A written GMP program should also include sanitation and pest control policies and documentation. The sanitation program should include information about the cleaning chemicals used in the plant, how effective they are handled and stored, and how the Material Safety Data Sheets (MSDS) are maintained. Additionally, the sanitation program should detail weekly, monthly, and periodic cleaning schedules and how that cleaning is to be monitored and recorded.

The GMP plan should include a section on “Production and Process Controls” that addresses the methods of preventing contamination, processing time, temperature controls, and other critical factors. The firm must have a means of lot coding each batch of product so that a product recall can be initiated, if necessary.

Hazard Analysis Critical Control Point

As defined by the USDA Food Safety and Inspection Service (FSIS) the Hazard Analysis Critical Control Point (HACCP) system is a scientific approach to process control. It is designed to prevent the occurrence of problems by assuring that controls are applied at any point in a food production system where hazardous or critical situations could occur. Hazards include biological, chemical, or physical contamination of food products.

The Food Safety and Inspection Service (FSIS) published a final rule in July 1996 mandating that HACCP be implemented as the system of process control in all inspected meat and poultry plants. HACCP plans are currently mandatory in the juice and meat industry, with compliance in other industries being largely voluntary. A plan should be prepared in accordance with the Code of Federal Regulations (CFR) Hazard Analysis and Critical Control Point section (Part 417).

⁵ Keener, K. “SSOP and GMP Practices and Programs.” Purdue Extension.
<https://www.extension.purdue.edu/extmedia/FS/FS-21-W.pdf>

A HACCP Plan is a written document that outlines a process, identifies the points in that process where contamination is likely to occur, and then outlines a procedure for addressing those identified “critical control points” and establishes a procedure for dealing with variances that may occur that are not covered by the plan. It also encompasses the recording and documentation of the procedures and their effectiveness.

It is important to recognize that a HACCP plan only works if an effective sanitation program and documented GMPs are in place. A HACCP program is not designed to compensate for generally poor practices, but to use solid practices as a basis to provide the highest assurance of safety.

The writing and implementation of a HACCP plan involve a significant investment in time and planning. Because of the complexity and risk associated with slaughter of animals, the process will require detailed analysis to create a thorough plan. An approved plan will need to be in place prior to a facility beginning operations.

Processing Procedures

Written product specifications, processing flow diagrams, and processing procedures should be constructed both for the ease of tabulation for the owner of the venture, as well as for use in inspection and regulation aspects of the business. In some cases, detailed diagrams and other information regarding processing procedures may be required.

FDA



The US Food and Drug Administration (FDA) oversee much of the nation’s food supply, as well as drugs and medical devices. The agency is also responsible for interpreting the law and writing regulations concerning specific food products and processes. Rules and regulations established by the FDA are published in Title 21 of the Code of Federal Regulations (CFR) which can be found at www.ecfr.gov. These laws are intended to assure that foods are safe to eat, pure, wholesome, and produced under sanitary conditions.

FDA inspectors have the authority to inspect any establishment where food is processed, packaged, or held for shipment in interstate commerce. They can also inspect products after shipment, vehicles used to transport food in interstate commerce, equipment, finished products, containers, and labeling.

Food Safety Modernization Act (FSMA)

The FSMA, the broadest reform of food safety laws in more than 70 years, was signed into law on January 4, 2011. It aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it and requires that food from abroad be as safe as domestically produced goods.

FDA has redesigned its webpage dedicated to the Food Safety Modernization Act (FSMA): www.fda.gov/FSMA. The agency encourages consumers, industry and food-safety professionals, local and state regulators, and international trading partners to get more involved in implementing the new law by learning what the FDA is doing, as well as providing feedback to help guide the FDA in the future. Key elements of the page include:

- A link to the new web-based search engine for recalled foods
- Frequently asked questions about the landmark food-safety legislation
- Videos and graphics explaining how the law will be implemented
- Information about public meetings on these reforms

The FSMA allows the FDA to administratively detain food the agency believes has been produced under unsanitary or unsafe conditions. Previously, the FDA's ability to detain food products applied only when the agency had credible evidence that a food product presented was contaminated or mislabeled in a way that presented a threat of serious adverse health consequences or death to humans or animals. Full implementation of the law will take time; however, beginning July 2011, the FDA is able to detain food products that it has reason to believe are adulterated or misbranded for up to 30 days, if needed, to ensure they are kept out of the marketplace.

Traceability

The federal Bioterrorism Act (BTA) is driving significant changes in food regulation. This federal law mandates regulations regarding record-keeping and product traceability. The FDA has published a guidance document which summarizes the recordkeeping and traceability requirements. More information is available at www.fda.gov.

Producers will be required to trace ingredients one step backward in the food chain and tie the ingredients to finished products one step forward in the chain if the products are being sold through retailers or wholesale distributors.

Food Handling Regulations

Any person who handles food should be aware of food legislation. The primary enabling legislation states the aims and objectives of the law. This provides the power to the relevant U.S. Departments of State to introduce specific regulations. For example, the Food Safety Modernization Act is a legislation approved by Congress and later allows the Food and Drug Administration to write a regulation/s for that particular law.

In general, food legislation has two objectives:

1. To ensure that the food offered is of the quality it is supposed to be.
2. To ensure that the food will not be harmful to the consumer.

For food processors, there are parameters for minimum standards with which products have to comply. For example, in bacteriological quality terms, tests done by laboratories have to follow the specifications as stated in the Bacteriological Analytical Manual (BAM) of the U.S. Department of Health & Human Services, U.S. Food and Drug Administration (FDA). This manual is available at www.fda.gov.

Section V: Business Registration and Federal Oversight

This section covers general business registration requirements, tax obligations, and federal regulatory oversight applicable to food processing operations.

Business Registration

The registration needs of a venture can vary depending on federal, state, and local laws. Some registration processes are free of charge, but certain types of business are subject to various registration fees and permits.

Businesses can form under another business or the owner's name, or they can choose to do business under a fictitious name, which requires the filing of a DBA (Doing Business As). Sometimes known as an "assumed name" certificate, a DBA is a document that provides owner identification when a business is operating under any name other than their legal name. Ventures organized as corporations may also need a DBA if they plan to use a different name than the one provided on their corporation paperwork (legal name).

Registration of Food Facilities

Facilities that process, store, or ship food for human or animal consumption are required to register with the FDA. First, a person must establish, at no cost, an online account with the FDA. Once an account is established, a person can register his or her farm or company and edit the registration information. The Food Safety and Inspection Service (FSIS) of USDA have prepared a guideline with good practices for food processors to take into account. It is available at www.fsis.usda.gov.

Brand Registration and Trademark

According to the U.S. Patent and Trademark Office (USPTO) a trademark includes any word, name, symbol, or device, or any combination, used, or intended to be used, in commerce to identify and distinguish the goods of one manufacturer or seller from goods manufactured or sold by others, and to indicate the source of the goods. In short, a trademark is a brand name.



The name and logo design of the operation needs to be trademarked and registered at the national level. Failure to obtain appropriate intellectual property protection invites others to pirate the venture's work. The practical purpose of a trademark is to prevent consumers from becoming confused about who provided the goods or services they purchased.

Taxes

Federal, state, and local authorities all have tax requirements that affect the formation or expansion of a business.

Taxpayer ID and Employer Identification Numbers

The Federal (Employer) Identification Number, also known as a Tax Identification Number or EIN, is a number issued by the IRS for the purposes of identifying businesses. If the business has no employees or the business is a type other than a corporation, a Social Security number generally functions as the EIN. Nearly all business structures that employ individuals, as well as other business entities use EINs. To apply for an EIN use form SS-4: Application for Employer Identification Number, or over the phone by contacting the IRS at: 1-800-829-1040 or 866-816-2065, or online at: www.irs.gov.

Anne Arundel RAC Feasibility Study Phase I

It is necessary to do recordkeeping for tax purposes (bank deposits, sales receipts and other elements of support) and to have the record available for examination by IRS.

Some of the most complex issues facing small business owners today are the various taxes and tax structures. The business may be subject to, or responsible for, collecting or withholding:

- Taxes on the business itself
- Ad Valorem Taxes (Taxes on Property)
- Sales and Use taxes
- Employment and Income Taxes.

Federal

For specific information regarding federal tax requirements, contact the Internal Revenue Service to obtain a copy of the Small Business Resource Guide. This guide contains information on federal tax obligations as well as various publications for starting a business.

Required Federal Employment Taxes

- Federal Income Tax Withholding
- Social Security and Medicare Taxes (FICA)
- Federal Unemployment Tax (FUTA)

Forms and Employees

It is required that all employers have their employees fill out the following forms: Form I-9 and Form W-4. More information explaining the Federal tax responsibilities of the employers can be found in the IRS' Publication 15, Circular E, Employer's Tax Guide.

- **Form I-9:** Employment Eligibility Verification. This document is available from the Immigration and Naturalization Service by calling 800-357-2099 or online at www.bcis.gov.
- **Form W-4:** Employee's Withholding Allowance Certificate. This form is available from the Internal Revenue Service. Call FORMS/PUBLICATIONS at 800-829-3676, or INFORMATION at 800-829-1040. The form can also be downloaded by visiting www.irs.gov.

Certain agricultural employers are required to fill out specialized forms depending on their type of work, or they may be exempt from certain laws. For more information, see www.irs.gov.

State and Local

In addition to business taxes required by the federal government, some state and local taxes will normally have to be paid. Each state and locality have its own tax laws. Having knowledge of state tax requirement can help avoid problems and save money.

- **Tax Permit:** In most states, business owners are required to register their business with a state tax agency and apply for certain tax permits. For example, in order to collect sales tax from customers, many states require businesses to apply for a state sales tax permit.

- **Income Taxes:** Nearly every state levies a business or corporate income tax. The tax requirement depends on the legal structure of the business. For example, if the business is a Limited Liability Company (LLC), the LLC gets taxed separately from the owners, while sole proprietors report their personal and business income taxes using the same form. Consult a tax advisor/CPA for specific requirements for the business.
- **Employment Taxes:** In addition to federal employment taxes, business owners with employees are also responsible for paying certain taxes required by the state. All states require payment of state workers' compensation insurance and unemployment insurance taxes. Also, some states require a business to pay for temporary disability insurance.
- **Sales Tax and Resellers:** In the case of a business purchasing items that are intended for resale, many states that collect sales taxes allow a business to purchase resale items tax-free. The requirements and guidelines vary from state to state, check with the locality for specific information.

Product Liability Insurance

Similar to other food products intended for retail sale and consumption, red meat products may be subject to various contamination risks and the potential for recalls and food safety issues carry a risk of liability. The operation will need to have a product liability insurance policy in place. This type of insurance is available through most commercial insurance carriers. Insurance carriers should be contacted to provide actual quotes.

Internet

The Internet Corporation for Assigned Names and Numbers (ICANN) is responsible for managing and coordinating the Domain Name System (DNS) to ensure that every address is unique, and internet users can find all valid addresses. For more information see www.icann.org.

Domain names can be registered through many different companies (known as "registrars") that compete with one another. A listing of these companies appears in the Registrar Directory available at www.internic.net/regist.html.

Regardless of the sales channel, all foods sold in the U.S. must be in full compliance with FDA food labeling requirements that are specified in the U.S. Code of Federal Regulations. The FDA monitors websites of companies on the internet so companies have to comply with all regulations and claims that are made about the foods and/or its ingredients.

Consumer Protection Concerns



The Federal Trade Commission (FTC) is the nation's consumer protection agency. The FTC's Bureau of Consumer Protection works for the consumer to prevent fraud, deception, and unfair business practices in the marketplace. More information is available at www.ftc.gov.

The owners are responsible to provide a safe environment both for employees and the general public. Examples include:

- Security elements set in place, such as clear exit signs at the facility, fire extinguishers, access for disabled persons, first aid kits, and emergency procedures.
- Laboratories providing designated areas for sample analysis, where special ventilation systems must be in place if chemical substances are used.
- Using “caution hot” signs after burners have been used.
- Using “caution wet floor” signs after floors are washed.
- Protecting processing facilities to prevent vermin from entering the production area.
- Access/entrance to the farm. What was once acceptable as access to a farm for agricultural purposes, may no longer be legal access for the general public.

Section VI: Workplace & Environmental Compliance

This section covers workforce regulations, workplace safety, and environmental compliance requirements including labor laws, OSHA standards, EPA regulations, and utility infrastructure.

Labor Regulations



It is vital to choose the right method for recruiting and selection that best adapts to a business venture. Having clear and defined objectives, duties, and responsibilities for each position will ensure proper selection of personnel, as well as avoid costly lawsuits related to discrimination and sexual harassment.

Many additional labor laws and regulations will begin to affect the business should the venture approach 50 employees. It is important to monitor operations carefully to determine if the extra labor is feasible, given the additional cost that new regulations may carry. Affirmative Action, Equal Employment Opportunity, the Family and Medical Leave Act, and the Affordable Care Act all have provisions and regulations that are triggered once a business reaches the “50 or more” employee mark.

Employment Eligibility Verification

Workers must have valid work permits if they are not U.S. citizens. Each farm labor contractor, agricultural employer, and agricultural association which is subject to the MSPA and who employs any migrant or seasonal agricultural worker(s) shall post and keep posted in a conspicuous place at the place of employment a poster prepared by the Department of Labor which explains the rights and protections for workers required under the Migrant and Seasonal Agricultural Worker Protection Act (source: DOL).

Safety Issues and OSHA



The Occupational Safety and Health Administration, or OSHA, is responsible for enforcing compliance with US laws regarding safety and workplace conditions. Compliance is expected to be voluntary, with inspections as a consequence for extended non-compliance.

Employers have the responsibility to provide a safe workplace. Employers must provide their employees with a workplace that does not have serious hazards and follow all OSHA safety and health standards. Employers must find and correct safety and health problems. OSHA further requires that employers try to eliminate or reduce hazards first by making changes in working conditions rather than just relying on masks, gloves, ear plugs or other types of personal

protective equipment (PPE). Switching to safer chemicals, enclosing processes to trap harmful fumes, or using ventilation systems to clean the air are examples of effective ways to get rid of or minimize risks.

If there are laboratories in the facility, then a manual with clear procedures for each quality test must be in place and in compliance with FDA and USDA regulations. Safety globes, hats, industrial aprons, boots and glasses should be available for workers in the processing areas. In this context, having accident insurance for workers is an important matter as well.

Exit signs, easy access in and out of the building, fire extinguishers, evaluation, medical supplies and procedures are also important considerations. Other issues include hazard prevention and control, safety and health recordkeeping, and injury/illness records. It is important to develop an action plan to cover these types of situations. More details are available at www.osha.gov.

Environmental Constraints (EPA)



The US Environmental Protection Agency (EPA) and state environmental agencies regulate the impact of businesses on the environment. EPA develops and enforces regulations that implement environmental laws enacted by Congress. Likewise, state agencies enforce regulations that implement laws enacted by the state legislature.

The U.S. Small Business Administration divides the environmental regulations into different areas such as air pollution, basics of environmental compliance, cleanup, ecosystems, environmental management (odor control, etc.), environmental permits and planning, pollutants and chemicals, pollution prevention, storage tanks, waste and water (preventing contamination of water supplies, etc.). More specifics on each case are available at www.sba.gov.

The owners of the facility need to consider environmental constraints related to the use of natural resources as well as in processing and waste disposal. Thus, the environmental effects of food processing are intimately linked with the type of product and processing technique and the effluents from that process. It is necessary to determine the characteristics of the effluent to identify the best option for treatment according to the end purpose (for example land application). The Environmental Protection Agency, as well as FDA and the Department of Agriculture coordinate efforts to enforce laws in agri-food activities.

Water & Sewer

Specific regulations govern the sources of water used in the production of food products. When locating any agricultural business that includes the production of large amounts of waste or byproducts, it is essential to address the regulations and constraints of disposal. Should a facility utilize a municipal water and sewer source, specific regulations governing the allowable limit of dissolved solids, as well as chemicals, nutrients, and PH levels allowed in wastewater will need to be addressed prior to production.

Should the facility be located in a region that does not include access to a municipal or other standardized water and sewer supply, environmental regulation may affect the disposal of production waste or by-products. Many pretreatments protocols mandate that the facility treat the

wastewater, either by the use of physical, chemical, or biological processes, to reduce the amount of pollutants, or alter pollutants to a less harmful state prior to discharging to the sewer system.

Programs and regulations also often include rules stating that the facility must self-test their effluent water on a regular basis and provide records and result of this monitoring to the governing sewer authority. In addition to self-monitoring, the facility may be subject to annual local government testing. Failure to abide by applicable laws and regulations in this arena may result in fines or the cessation of business if they are not properly addressed.

Transportation Regulations⁶



The processing facility must comply with certain federal transportation regulations in regard to the pickup and delivery of products. A sanitary transportation rule currently exists as part of the FSMA that sets safety and cleanliness standards during the transportation of food. Certain entities are exempt from these rules, such as farms, but a food hub operation may need to ensure compliance.

Any pick-ups or deliveries made with-in a 60-mile radius of the facility may fall under several exceptions designated by the Federal Motor Carrier Safety Administration (FMCSA).

An air mile is a term used by the FMCSA to define a unit of measurement used in transportation. An air mile is longer than a statute mile, with 100 air miles equaling 115.08 statute miles. The 100-air-mile radius exemption may apply to a facility if all pick-ups and deliveries occur within 100 air miles of the facility and no driver works more than 12 hours in one day, the drivers are not required by law to maintain a logbook of their on and off-duty hours.

Drivers are required to hold a commercial driver's license (CDL) if the load of the truck is greater than 26,001 pounds. Drivers of any semi-trucks used to transport product will be required to hold a CDL.

In general, commercial drivers must abide by the 14-hour consecutive duty period limit, meaning that they cannot have more than 14 hours of drive time in a 24-hour period. For drivers who fall under the 16-hour short-haul exemption, an allowance is made to extend the 14 hour per day drive time limit to 16 hours once every seven consecutive workdays or after 34 hours off duty.

Deliveries not utilizing a truck that requires a CDL will not be subject to certain restrictions. In order to qualify for this exemption, the driver must operate a truck that does not require a CDL and work within 150 air miles of their reporting locations.

Under this exemption, drivers are not required to keep a logbook. They are also allowed to maintain 16-hour duty periods twice every 7 days or after 34 hours of off-duty time.

⁶ Interstate Truck Driver's Guide to Hours of Service.
https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Drivers%20Guide%20to%20HOS%202015_508.pdf

REGIONAL LIVESTOCK SLAUGHTER AND RED MEAT PROCESSING FACILITIES

The venture will be competing with other red meat processing facilities and slaughterhouses for a supply of inputs from regional producers. While the processing options in the region are limited, other operational facilities need to be considered by the processing facilities management before establishing operations. Producers will need to choose to have their meat processed at the RAC, and these decisions will be based on several factors such as location, other available processors, pricing, convenience, and more. Consequently, it is critical to monitor other businesses' activities (prices, products produced, labels, suppliers, distributors, promotions, etc.) to keep up with the competition in the marketplace.

Meat processing facilities range in scale and the type of species they process. While still in preliminary planning stages, the RAC will more than likely face competition primarily from medium and large-scale, USDA-inspected facilities, though smaller non-USDA facilities may also compete with the facility for producers. The most significant recent development in the region is the ongoing upgrade of Stauffer's Butcher Barn in St. Mary's County from custom-exempt status to full USDA-inspected retail processing. Once certified (anticipated 2025–2026), Stauffer's will partner with the nearby West Forty Market slaughter operation to create a complete local processing circuit within St. Mary's County. While this meaningfully improves processing access for producers in the southern portion of the study area, it does not address the gap across the four remaining counties. The competitive facility inventory below reflects this landscape.

Key Findings:

- **1 USDA-inspected slaughter facility** now operates in St. Mary's County (West Forty Market, certified 2021)
- **Zero USDA-inspected slaughter facilities** in Anne Arundel, Prince George's, Calvert, or Charles Counties
- **13 processing facilities** exist in Prince George's County, but focus on value-added products (not primary slaughter/fabrication)
- **1 facility** in Anne Arundel County (value-added processing only)
- **Baltimore area** has numerous facilities but few that take local toll processing and limited multi-species slaughter capacity (3 facilities)
- **Stauffer's Butcher Barn** in St. Mary's County is actively upgrading from custom exempt to USDA-inspected processing and anticipated to be active sometime in 2026.
- **Non-USDA inspected processing facilities** are often used after animals are slaughtered at different USDA-inspected slaughter sites, requiring additional travel and expense

USDA Inspected Facilities

The USDA Food Safety and Inspection Service (FSIS) maintains a directory of all inspected meat slaughter facilities around the country. The following is a list of Federally inspected meat processing facilities in Anne Arundel County and the surrounding region.⁷ Data current as of the writing of this study and subject to change.

⁷ <https://www.fsis.usda.gov/inspection/establishments/meat-poultry-and-egg-product-inspection-directory>

It should be noted that the region is home to several large-scale commercial slaughter and processing operations that are not reflected in the competitive landscape facing the RAC. These facilities, which include plants operated by or under contract to major national and regional meat brands, function as captive supply chains and do not generally offer toll processing services to independent livestock producers. Their operations are oriented toward high-volume, commodity-scale throughput for a specific brand or buyer, rather than the custom, producer-directed processing that the RAC would provide. While these facilities contribute to the region’s overall processing capacity, they are effectively inaccessible to the small and mid-scale independent producers the RAC is designed to serve and should be understood as distinct from the competitive processing infrastructure available to those producers.

The following comparison table focuses on facilities most relevant to livestock producers seeking slaughter and primary processing services. This selective list includes 12 key facilities that would directly compete with or complement the proposed RAC's core services of livestock slaughter, carcass fabrication, and whole-animal processing. The table excludes specialized value-added processors (such as bacon-only operations, ethnic sausage manufacturers, and prepared food producers) that serve a different market segment. Comprehensive information on all regional facilities, including specialized processors, appears in the detailed facility descriptions that follow.

Select USDA-Inspected Facility Comparison Table

Legend:

- ★ = USDA-certified facility in study area (operational)
- ★★ = Actively upgrading to USDA (2025-2026)
- S = Slaughter services | P = Processing only
- Multi-Sp = Multi-species capability

Facility Name	Location	Services	Species	Distance from Anne Arundel
West Forty Market ★	Mechanicsville, St. Mary's	S + P	Multi-Sp	~1 hour
Stauffer's Butcher Barn ★★	Mechanicsville, St. Mary's	P (upgrading)	Beef, Hog, Sheep, Goat	~1 hour
J.W. Treuth & Sons	Catonsville, Baltimore Co.	S + P	Beef only	30-45 min
G.G. Ruppertsberger & Sons	Baltimore	S only	Beef, Lamb	30-45 min
Bowman's Butcher Shop	Aberdeen, Harford Co.	S + P	Beef, Lamb, Chicken (no pork)	1+ hour NE
Fells Point LLC	Baltimore	P only	Beef, Pork, Poultry	30-45 min
Old Line Custom Meat	Baltimore	P only	Beef, Sheep, Goat (no pork)	30-45 min
Sudlersville Meat Locker	Sudlersville, Queen Anne's Co.	S + P	Multi-Sp (most comprehensive)	1.5-2 hours

Anne Arundel RAC Feasibility Study Phase I

Facility Name	Location	Services	Species	Distance from Anne Arundel
Finest Butcher	Bealeton, VA	P only	Beef, Hog, Lamb, Goat	1-1.5 hours
Smucker's Meats	Mount Joy, PA	S + P	Beef, Hog	2+ hours
Stoney Point Butcher	Littlestown, PA	S + P	Beef, Hog	1.5-2 hours
Godfrey Brothers Meats	York, PA	S + P	Beef, Hog, Lamb, Goat	1.5-2 hours

Table Notes:

Yellow highlight = Study area facilities (Southern Maryland)

Blue highlight = Baltimore area slaughter facilities

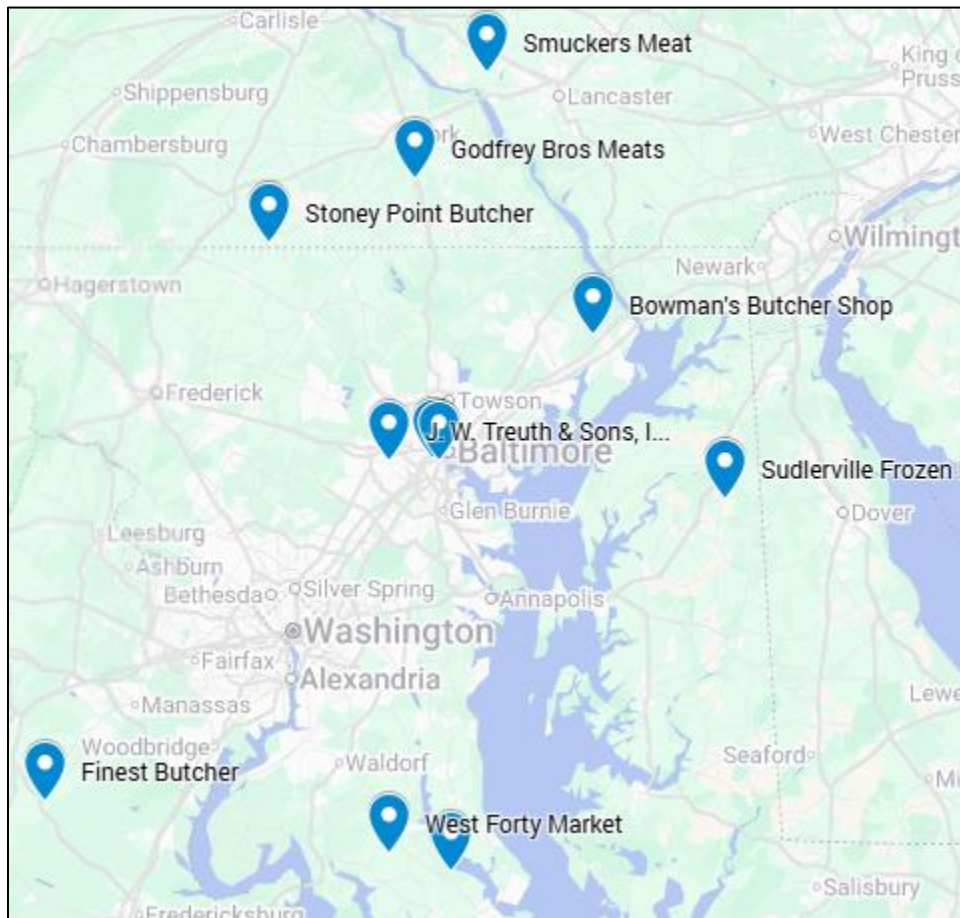
Gray highlight = Baltimore area processing-only facilities

Green highlight = Eastern Shore facilities

Pink highlight = Virginia facilities

Purple highlight = Pennsylvania facilities

Figure 1: USDA Inspected Meat Slaughter and Processing Facilities Map



Detailed Facility Descriptions

Anne Arundel County

Anne Arundel County has 1 USDA-inspected meat processing facility, however it does not offer slaughter services and instead focuses on creating value-added products that it sells through its multiple business locations rather than offering primary livestock processing to producers. Slaughter facilities are currently not allowed in Anne Arundel County under current zoning regulations.

Negril, Inc.

Address: 815-J Central Ave, Linthicum Heights, MD 21090

Prince George's County

Prince George's County has **13 USDA-inspected meat facilities**, making it the most facility-dense county in the study area. However, **none offer slaughter services** and most focus on value-added products (sausages, prepared foods, ethnic specialties) rather than offering primary livestock processing to producers.

P&F Meat Market

"DBA" MeatCrafters

Address: 3904 Ironwood Place, Landover, MD 20785

Prime Foods, Inc.

Address: 5213 Monroe Pl., Hyattsville, MD 20781

Buckhead Meat & Seafood Mid-Atlantic, Inc.

Address: 1920 Stanford Court, Landover, MD 20785

Spectrum Foods, Inc.

Address: 3388 Pennsy Dr., Landover, MD 20785

East West LLC

Address: 8706 Old Ardmore Road, Landover, MD 20785

Superior Sausage, LLC

Address: 8000 Fernham

Lane, District Heights, MD 20747

Island Bwoy Cuisine, LLC

Address: 4505 Beech Road, Temple Hills, MD 20748

Encore Sausage Company

Address: 3137 Pennsy Drive, Hyattsville, MD 20785

Dutch Mill Catering T/A Torn Apron Foods

Address: 4004 Volta Ave, Brentwood, MD 20722

Mulan Dumpling LLC

Address: 5724 Lafayette Place, Hyattsville, MD 20781

U.S. Beef Inc.

Address: 10700 Hanna

Street, Beltsville, MD 20705

Hartman Enterprises Inc. DBA Hartman Meat Co.

Address: 2430A Schuster Dr., Hyattsville, MD 20781

St. Mary's County

St. Mary's County is home to the only USDA-inspected slaughter facility in the five Southern Maryland counties, West Forty Market. It received its USDA certification in July 2021 with SMADC assistance, a major milestone for the area. They are an Amish-owned and operated facility and work in partnership with Stauffer's Butcher Barn (a custom-exempt facility located in St. Mary's County) for complete processing services. They offer multi-species slaughter and processing services with very limited value-added processing capacity. Additionally, Stauffer's Butcher barn is in the process of getting its USDA certification to expand processing capacity in the region.

West Forty Market, LLC

Address: 37404 Westham Lane, Mechanicsville, MD 20659

Services: Multi-species slaughter and limited processing

Other USDA-Inspected Facilities Around the Region

Baltimore Area Slaughter Facilities

The following are USDA-Inspected facilities that offer livestock slaughter services in and around the Baltimore area.

J.W. Treuth & Sons, Inc. – Catonsville, MD

Location: Catonsville, Baltimore County

Website: <https://www.jwtreuth.com/>

Activities: Meat Processing, Meat Slaughter, Poultry Processing, Voluntary Slaughter - Meat

Distance from Anne Arundel: Approximately 30-45 minutes

Notes: One of only three slaughter facilities in Baltimore area. Beef-only operations with a specialization in kosher and prime beef. Significant processing volume and a retail butcher shop.

G.G. Ruppertsberger & Sons Inc. – Baltimore, MD

Location: Baltimore City

Activities: Meat Processing, **Meat Slaughter**

Distance from Anne Arundel: Approximately 30-45 minutes

Notes: Slaughter-only facility. Does not offer processing services. Multi-species capability.

Bowman's Butcher Shop, LLC – Aberdeen, MD

Location: Aberdeen, Harford County

Website: <https://bowmansbutchershop.com/>

Activities: Meat Processing, **Meat Slaughter**

Distance from Anne Arundel: Approximately 1+ hour northeast

Notes: Most versatile Baltimore-area facility. Multi-species slaughter and processing. Offers both USDA and custom exempt services.

Baltimore Area Processing-Only Facilities

Fells Point, LLC

Location: Baltimore City

Website: <http://www.fpwmeats.com/>

Activities: Meat Processing, Poultry Processing

Notes: Processing only, no slaughter. High-volume facility.

Old Line Custom Meat Company LLC

Location: Baltimore City

Website: <https://www.facebook.com/OldLine1600/>

Activities: Meat Processing

Notes: Processing only. No pork processing.

JD's House of Bacon, Inc.

Location: Baltimore County

Website: <https://jdshouseofbacon.com/>

Activities: Meat Processing

Notes: Specialized bacon and pork products. Processing only.

Binkert's Meat Products, LLC

Location: Baltimore County

Website: <https://www.binkerts.com/>

Activities: Meat Processing

Notes: Processing only. Pork specialization.

Dave's Seafood Meat & Poultry

Location: Baltimore City

Website: <https://www.davessmokehouse.com/>

Activities: Meat Processing, Poultry Processing

Notes: High-volume processing. Also processes seafood. No slaughter.

Other Regional Facilities

Sudlersville Meat Locker

Location: Sudlersville, MD

Website: <https://sudlersvillemeats.com/>

Distance: Approximately 1.5-2 hours from Anne Arundel County

Notes: **Most comprehensive facility in Maryland. Full multi-species capability** for both slaughter and processing. Significant distance from Southern Maryland creates transportation challenges.

Finest Butcher – Bealeton, VA

Location: Fauquier County, Northern Virginia

Address: 11746 Ag Industrial Rd, Bealeton, VA 22712

Website: <https://finestbutcher.com/>

Distance: Approximately 1-1.5 hours from Anne Arundel County

Services: **USDA-inspected multi-species processing**

Notes: Also offers value added processing such as curing, smoking, etc., as well as generic and private labeling services.

Smucker's Meats

Location – Mount Joy, PA

Website: <https://www.smuckersmeats.com/>

Distance: 2+ hours from Anne Arundel County

Services: Hog and cattle slaughter and processing, USDA inspected

Notes: Heavily utilized by Maryland producers. Long wait times common.

Stoney Point Butcher

Location: Littlestown, PA

Website: <https://stoneypointfarmmarket.com/>

Distance: 1.5-2 hours from Anne Arundel County

Services: Hog and cattle slaughter and processing, USDA inspected

Godfrey Brothers Meats

Location – York, PA

Website: <https://www.godfreymeats.com/>

Distance: 1.5-2 hours from Anne Arundel County

Services: Multi-species (cattle, hog, lamb, goat), USDA inspected

Notes: Limited kill slots, high demand

Custom Exempt (Non-USDA Inspected) Facilities

Custom exempt facilities can **only** process livestock for the owner of the animal. Products must be labeled "**Not for Sale**" and cannot be sold at retail, to restaurants, or at farmers markets.

These facilities serve producers who sell live animals directly to consumers who then own the animals before slaughter.

Chuck's Butcher Shop – Bryans Road, MD

Location: Charles County

Website: <http://www.chucksbutchershop.com/>

Services: Custom processing

Rowell's Butcher Shop – Prince Frederick, MD

Location: Calvert County

Services: Custom processing

JBG Butchery – Cockeysville, MD

Location: Baltimore County

Website: <https://jbgbutchery.com/>

Services: Custom processing for personal consumption

Wagner's Meats & Mt. Airy Locker Co. – Mt. Airy, MD

Location: Carroll/Frederick County area

Website: <https://www.wagnersmeats.com/>

Services: Custom processing

A-1 Livestock & Poultry – Aberdeen, MD

Location: Harford County

Website: <https://www.facebook.com/a1livestock/>

Services: Custom slaughter and processing

Stauffer's Butcher Barn – Upgrading to USDA

Location: Mechanicsville, St. Mary's County

Website: <https://stauffersbutcherbarn.com/>

Stauffer's Butcher Barn represents a significant development in Southern Maryland's livestock processing infrastructure. Operated by the Stauffer family (Steven and Jen, along with their children Jayden, Waylon, and Warren), this family business occupies a renovated century-old tobacco barn on their farm in Mechanicsville, Maryland. The structure, one of the oldest in St. Mary's County, reflects the region's agricultural heritage where such barns once dominated the landscape for curing tobacco leaves. What began as a family tradition has grown into a business serving a critical need in the community.

Currently operating as a custom exempt facility, Stauffer's provides beef processing with 10+ days of dry-aging, pork processing with 2+ days of dry-aging, and venison processing during hunting season. All processing is done to customer specification, allowing farmers and hunters to customize their cuts. However, as a custom exempt operation, they can only process livestock for the owner of the animal, and all products must be labeled "Not for Sale." This limitation prevents local livestock producers from accessing retail markets through their services.

In August 2025, Stauffer's Butcher Barn was awarded the first-ever funding package through the Southern Maryland Livestock Processing Revolving Loan Fund, a joint initiative between the Southern Maryland Agricultural Development Commission (SMADC) and the Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO). The \$450,000 package includes a \$200,000 no-match grant plus a \$250,000 loan with forgivable options. These funds will enable the Stauffer family to acquire equipment and upgrade their facility from custom exempt status to full USDA-inspected retail processing, with certification expected in 2025-2026.

Upon USDA certification, Stauffer's will offer comprehensive retail processing services for beef, hogs, sheep, and goats. The expanded facility will provide cut, wrap, and label services for fresh meat sales, enabling producers to sell directly to consumers and retailers. Value-added processing capabilities will include sausage production, bacon processing, scrapple production, stuffed hams (a Southern Maryland specialty), and smoked and fermented meats. The facility will also feature a dedicated retail sales area for locally produced items, promoting consumer engagement and broadening markets for Southern Maryland livestock farmers. All products will be vacuum sealed and frozen before collection by farmers.

The significance of this development extends beyond a single facility upgrade. Located only 15 miles from West Forty Market—the Amish-owned USDA-approved slaughterhouse that SMADC helped certify in July 2021—Stauffer's creates a complete local processing circuit within St. Mary's County. Farmers can now drop off live animals at West Forty Market for slaughter, then pick up finished, vacuum-sealed, USDA-labeled products at Stauffer's Butcher Barn, all without leaving the county. This partnership eliminates the need for Southern Maryland producers to drive hours to processors in northern Maryland, the Eastern Shore, or Pennsylvania—trips that often consume entire days and impose significant transportation costs.

This project represents the culmination of more than a decade of effort to establish local USDA processing capacity in Southern Maryland. Previous attempts at a centralized, county-run agricultural hub faced numerous challenges and were ultimately abandoned. SMADC's decision to support existing private businesses like Stauffer's through targeted grants and loans has proven to be a more effective approach. As Craig Sewell, SMADC's former marketing and livestock specialist, noted, "What is striking in hindsight is how complex and time-consuming these projects are. Balancing regulations, financing and business readiness has been challenging, but the persistence of the agricultural community and partners has finally delivered this outcome." SMADC continues to provide administrative support to Stauffer's throughout the USDA certification process, and once operational, the facility is expected to serve as a model for similar expansions throughout the region.

LIVESTOCK AND MEAT INDUSTRY BACKGROUND

The following information provides context for the beef and red meat markets in the United States. Overall, sales and marketing trends for these products are positive with growth and customer demand expected to continue increasing in the coming years.

National Red Meat Industry

The red meat industry in the United States encompasses various types of meat, including beef, pork, mutton/lamb, and goat meat. Beef and pork are particularly popular among households. Over time, the production and consumption, or disappearance, of red meat have fluctuated.

The following data is representative of data available at the time of writing this study. New data is constantly being released and that may change from what is shown here. This section is intended to be a reflection of current trends in the industry.

The following table provides data on the national inventory of red meat livestock, as reported by the USDA National Agricultural Statistics Service (NASS) point in time survey data. The inventory of beef cattle has seen a decrease of over 10% since 2010, while the inventory of hogs has increased by almost 18%. Meanwhile, the inventory of sheep and lamb has decreased by over 10%. NASS data for meat goats was first available starting from 2010 and has since seen a decline of around 18%.

Table 1: National Red Meat Livestock Inventory - Total Head: 2010-2025

Year	Beef Cattle	Hogs	Sheep and Lamb	Meat Goats
2025	28,700,000	74,200,222	5,020,000	1,940,000
2024	28,200,000	74,801,300	5,030,000	1,950,000
2023	28,900,000	73,550,500	5,130,000	2,010,000
2022	30,100,000	72,500,000	5,070,000	2,030,000
2021	31,200,000	75,700,000	5,170,000	2,050,000
2020	31,300,000	79,600,000	5,200,000	2,090,000
2019	31,690,700	74,661,200	5,230,000	2,055,000
2018	31,466,200	72,054,900	5,265,000	2,075,000
2017	31,170,700	70,916,000	5,270,000	2,080,000
2016	30,163,800	68,274,000	5,295,000	2,080,000
2015	29,332,100	67,299,000	5,270,000	2,125,000
2014	28,956,400	61,344,000	5,235,000	2,100,000
2013	29,631,300	65,072,000	5,360,000	2,114,000
2012	30,281,900	64,777,000	5,375,000	2,194,000
2011	30,912,600	63,759,000	5,470,000	2,278,000
2010	31,439,900	63,618,000	5,620,000	2,389,000

The table below highlights the data from USDA ERS’s October 2024 red meat production data for 2024, and forecasts for Q1-Q3 and annual totals 2025.⁸

Table 2: 2024-2025 US Red Meat Forecasts: Production, million lbs.

	2024	2025				
	Annual	Q1	Q2	Q3	Q4	Annual
Beef	27,000	6,540	6,650	6,425	N/A	25,925
Total Meat /Poultry	107,884	26,820	26,774	27,087	N/A	108,190

The ERS data reveals a projected decline in beef production from 2024 to 2025, decreasing from 27 billion pounds to around 26 billion pounds. Total meat and poultry production, however, is anticipated to rise slightly.

As the cattle herds have shrunk alongside decreases in processing, demand has stayed consistent. This has resulted in a higher price for livestock. The following table from the 2025 Agricultural Outlook Conference shows the increase in price per hundredweight for both cattle and hogs in the past year.⁹

Table 3: 2025 Livestock Prices

	2021	2022	2023	2024	2025
dollars per hundredweight					
Cattle	122.40	144.40	175.54	187.12	201.00
Hogs	67.29	71.21	58.59	61.56	64.00

Cattle prices have risen each year from \$122.40 per hundredweight in 2021 to \$201 in 2025. Hogs saw a peak in 2022 but have been on the rise again since 2023.

National Red Meat Slaughter and Processing

Meat and poultry slaughter are an important part of the overall food and beverage manufacturing industry where employees are engaged in transforming raw agricultural materials into products for intermediate or final consumption. In 2019, the U.S. food and beverage manufacturing sector employed 1.7 million people, or just over 1.1 percent of all U.S. nonfarm employment. Meat and

⁸USDA ERS. Livestock, Dairy, and Poultry Outlook. October 2024.

<https://www.ers.usda.gov/webdocs/outlooks/110235/ldp-m-364.pdf?v=1587.4>

⁹ AG outlook conference, Chief Economist Plenary Session. February 27, 2025.

<https://www.usda.gov/sites/default/files/documents/2025AOF-agricultural-economic-foreign-trade-outlook-slides.pdf>

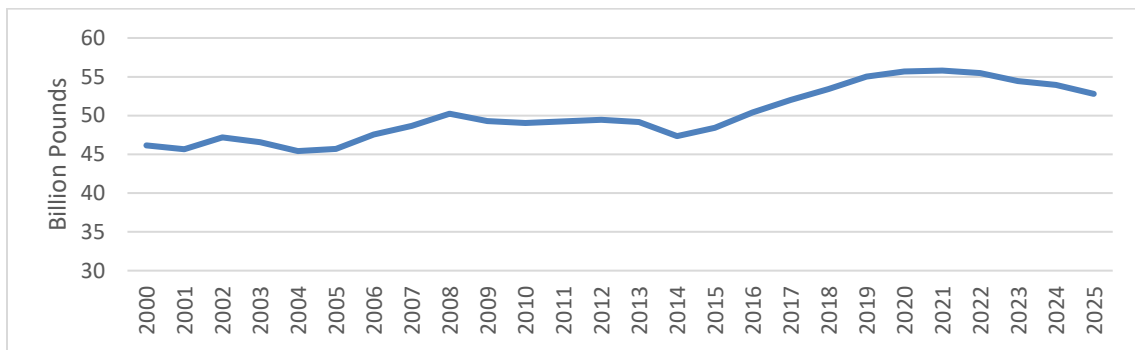
poultry plants employed the largest percentage of food and beverage manufacturing workers accounting for nearly 30 percent of the industry’s labor force.¹⁰

Commercial Slaughter Trends

Total U.S. commercial red meat production rose steadily through 2021, peaking in 2022, before beginning a gradual decline. According to the latest NASS data, production in 2025 (forecast) is expected to total ~52.8 billion pounds, down from 53.9 billion pounds in 2024 and 55.9 billion pounds in 2022.

The lowest point in the 2000–2025 period remains 2004, at 45.4 billion pounds. While the long-term trend since then has been upward, recent years have been shaped by the combined effects of COVID-19 disruptions, drought-reduced cattle supplies, and broader economic pressures.

Figure 2: National Red Meat Slaughter, Commercial Production, 2000-2025¹¹



In 2023, commercial red meat production displayed pronounced month-to-month fluctuations, beginning the year at roughly 4,750 million pounds in January and climbing to a peak of about 4,900 million pounds in March. Output then dipped sharply to its annual low of around 4,150 million pounds in July before rebounding to approximately 4,750 million pounds in October and closing the year near 4,550 million pounds in December.

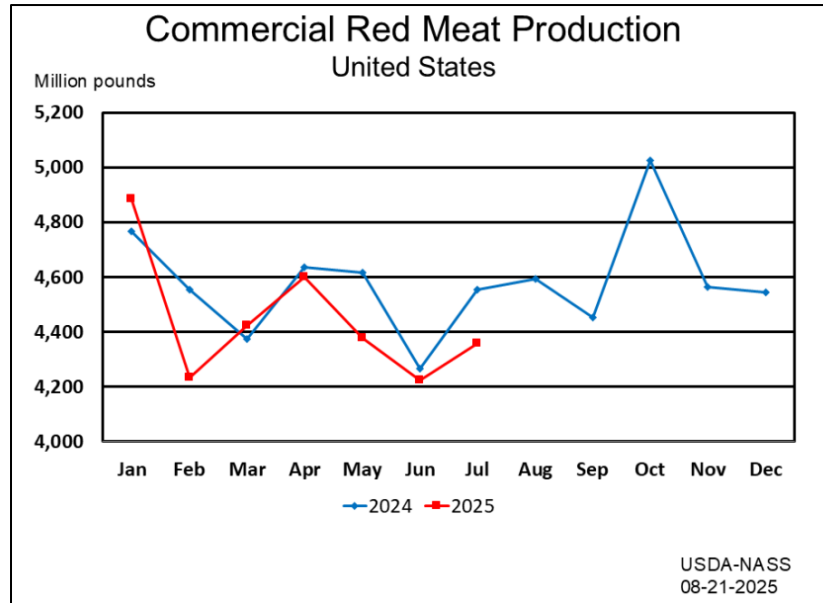
By contrast, 2024 opened at a similar level of about 4,750 million pounds in January but trended downward through March to roughly 4,400 million pounds. A modest recovery in May brought production back to around 4,600 million pounds, followed by another decline to about 4,300 million pounds in June. The first half of 2025 has continued this softer trajectory, starting at approximately 4,620 million pounds in January, edging up to 4,670 million pounds in February, and then slipping to 4,480 million pounds in March and 4,420 million pounds in April. May marked the sharpest year-over-year drop, falling to about 4,380 million pounds — 5 percent below May 2024 — before a slight rebound to 4,410 million pounds in June. Overall, both 2024 and early 2025 have consistently tracked below 2023 levels, suggesting a continued contraction

¹⁰ USDA ERS (2021). Data Products. Food and Beverage Manufacturing Employees by Industry. <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58286>

¹¹ USDA National Agricultural Services (2022). Quick Stats: Red Meat Slaughter Commercial Production. <https://quickstats.nass.usda.gov/results/B22EF5DF-7149-3239-9B0A-6652E44D47B8>

in red meat production. The following USDA NASS chart on commercial red meat production compares monthly data from 2024 and 2025.

Figure 3: 2024-2025 Commercial Red Meat Production¹²



The largest meat brands and companies in the United States have remained relatively consistent over the years, though rankings have shifted. Cargill Meat Solutions now leads the pack, followed by Sysco Corp. and Tyson Foods. Notably, Tyson Foods and JBS USA Holdings, once dominant in the top two spots, have seen changes in rank due to evolving market dynamics and competition. The Covid-19 pandemic had a significant impact on operations across the industry, with companies like Smithfield Foods reporting a \$72 million loss in Q2 2019 due to increased costs for employee benefits and safety measures. However, Smithfield has since rebounded, reporting \$3.8 billion in net sales in Q1 2025 alone, driven by a sharp recovery in hog production and strategic execution.¹³

Table 4: Top 11 Meat Processors (Ranked by 2025 Sales)

2025 Rank	2023 Rank	Company & Location	2025 Net Sales (Billion \$)	Number of Plants
1	1	Cargill Meat Solutions—Wichita, KS	\$160.0	40
2	2	Sysco Corp.—Houston, TX	\$78.8	125
3	4	Tyson Foods Inc.—Springdale, AR	\$53.6	183
4	3	JBS USA Holdings Inc.—Greeley, CO	\$37.3	65
5	5	Smithfield Foods Inc.—Smithfield, VA	\$14.1	40
6	6	ConAgra Brands LLC—Chicago, IL	\$12.1	42
7	7	Hormel Foods Inc.—Austin, MN	\$11.9	30
8	8	National Beef Packing—Kansas City, MO	\$11.9	8
9	10	Perdue Farms Inc.—Salisbury, MD	\$10.3	26

¹² https://www.nass.usda.gov/Charts_and_Maps/Livestock_Slaughter/rdmtprod.php

¹³ <https://investors.smithfieldfoods.com/news-events/press-releases/detail/1404/smithfield-foods-reports-strong-year-over-year-profit-growth-in-the-first-quarter-of-fiscal-2025>

10	9	Seaboard Foods LLC—Shawnee Mission, KS	\$9.1	3
11	N/A	Wayne-Sanderson Farms—Laurel, MS	\$8.5	23

While there are major processing companies with processing plants across the nation, there are also many areas with small farms that do not have immediate access to a slaughter or processing plant. As part of the USDA’s Know Your Farmer, Know Your Food Initiative, the FSIS released maps with data showing the per-county density of small livestock producers and the locations of federally- and state-inspected slaughter facilities.

Recent Meat Processing Investment

The USDA announced in September 2024 that they are awarding more than \$35 million in grants to 15 independent meat processors in 12 states to increase processing capacity, spur competition to expand market opportunities for U.S. farmers and create jobs in rural areas. This marks the final investment in the Meat and Poultry Processing Expansion Program (MPPEP), funded by former President Biden’s American Rescue Plan, which was first launched in 2022.

Since the beginning of the program, USDA has provided 74 awards totaling more than \$325 million through MPPEP to expand processing capacity and strengthen the food supply chain. While many of these projects are still in development, some projects have already seen increased processing capacity by more than 800,000 cattle, 14,000 hogs, 23 million chickens and 5 million turkeys annually. Additionally, these projects are serving almost 900 additional meat and poultry producers and have created more than 1,200 new jobs.¹⁴

In late 2025, the USDA announced continued assistance to the beef industry to improve domestic beef supply. They opened additional land to grazing and began expanding programs for disaster relief and grant funding. A fourth round of the Meat and Poultry Processing Expansion Program was announced for 2026 to support beef processing facilities and the development of local supply chains.¹⁵

Industry Investment Hurdles

The administration's initiative to boost competition in the highly consolidated meatpacking industry has faced some notable hurdles, as evidenced by the case of Pure Prairie Poultry discussed in a November 2024 Wall Street Journal article. This startup company, which received a \$6.9 million grant and \$38.7 million loan guarantee from the USDA in 2022, ultimately filed for bankruptcy just a year later, leaving 1.3 million chickens to be euthanized after the owners could no longer afford to feed the birds.¹⁶

This incident highlights the risks and challenges inherent in the administration's efforts to inject more competition into the over \$200 billion meatpacking sector, which is dominated by just a handful of major players like Tyson, JBS, Cargill, and National Beef. These companies control around 85% of U.S. beef processing, making it extremely difficult for smaller, newer entrants to gain a meaningful foothold.

¹⁴ <https://www.usda.gov/media/press-releases/2024/09/19/biden-harris-administration-announces-final-awards-through-landmark>

¹⁵ <https://www.qualityassurancemag.com/news/usda-announces-plan-to-strengthen-united-states-beef-industry/>

¹⁶ <https://www.wsj.com/business/biden-meatpacking-policy-7adbdf2e?st=vJfzWo>

Several other recipients of the USDA's grants and loan guarantees have yet to break ground on their new processing facilities, reflecting the uphill climb these fledgling meatpacking ventures face. While some projects that are underway haven't gained any noticeable market share so far, it will take time for these operations to develop.

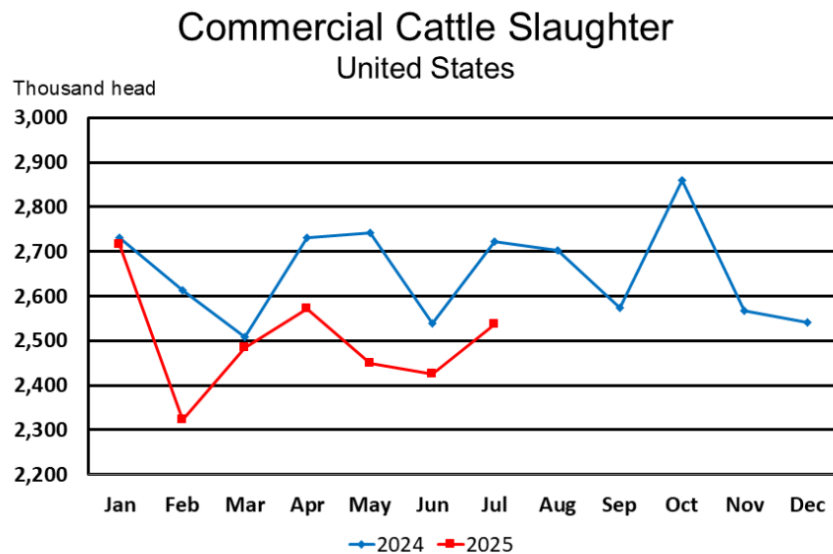
There are many challenges facing these newer meatpacking companies. They must not only secure reliable supply agreements with farmers, but also find customers willing to take their products - all while needing to pay premium wages to attract workers from the dominant industry players. Some plants have been delayed due to the current industry slump, as ranchers have shrunk their cattle herds following years of weaker prices and drought. The dominant position of a few massive corporations, the high capital costs of launching new processing facilities, and the cyclical nature of commodity markets pose significant hurdles for these smaller, aspiring players. Whether the initiatives can ultimately achieve their goals of expanding choice and reducing prices for consumers remains an open question.

National Cattle Trends

Cattle slaughter is cyclical in nature, with peaks and low points throughout the year based on the seasonal nature of cattle raising. In 2025, total cow slaughter in the United States has continued to trend well below both the 2018–2022 average and 2024 levels. The long-term seasonal pattern, as reflected in the five-year average, typically shows modest peaks in late winter or early spring and again in late summer. While 2024 already lagged behind this historical baseline due to tighter cattle supplies, 2025 has fallen even further, running approximately 12 percent lower than last year and about 15 percent below the five-year average through August. Although there has been a slight seasonal uptick during the summer months, it has been muted, suggesting that producers are holding back more cows to rebuild herds rather than sending them to slaughter. The following graph showcases the trends for total cow slaughter in the United States over 2024 and the first half of 2025.¹⁷

¹⁷ <https://www.cattlerange.com/articles/2025/08/commercial-red-meat-production-down-4-percent-last-month/>

Figure 4: 2024-2025 Commercial Cattle Slaughter



Dairy cow slaughter has followed a similar pattern of contraction in 2025, remaining below both last year’s levels and the historical average. While slaughter typically rises after early July, this year’s seasonal increase has been modest. Nationally, dairy cow slaughter is down about 9 percent year-to-date compared to 2024. Regionally, declines have been recorded in Virginia and Pennsylvania (down 6 percent), the Southeast (down 5 percent), and Texas, Arkansas, and Louisiana (down 18 percent), while Colorado and the Dakotas are the only areas reporting an increase, up 4 percent. Dairy cows now account for roughly 48.1 percent of all cow slaughter, slightly below the 10-year average of 48.6 percent. The combination of reduced dairy and beef cow slaughter is further tightening the supply of lean beef, sustaining record wholesale prices, and driving up replacement costs for dairy cows and heifers. In some markets, such as Kentucky, replacement prices have doubled from early 2024 levels, reflecting the pressure on both the beef and dairy sectors.

Cattle Price Trends and Impacts

Southern Plains auction prices for 85–90 percent lean slaughter cows have surged to unprecedented highs in 2025, reflecting the impact of reduced slaughter volumes on the market. Historically, the 2018–2022 average ranged between \$45 and \$65 per hundredweight, while 2024 prices held between \$115 and \$130 per hundredweight for most of the year. In contrast, 2025 prices began near \$145 per hundredweight in April and climbed steadily to between \$165 and \$186 per hundredweight by August. This represents a premium of \$35 to \$50 over last year’s highs and more than double the historical average, underscoring the combined effects of limited supply and strong demand for lean beef.¹⁸

Wholesale prices for fresh, 90 percent lean boneless beef have also reached record levels in 2025. The five-year average from 2018–2022 hovered between 225 and 260 cents per pound, with only mild seasonal variation. In 2024, prices rose from roughly 255 cents in January to

¹⁸ <https://www.cattlerange.com/articles/2024/05/weekly-cow-slaughter-trends-lower-as-prices-rise/>

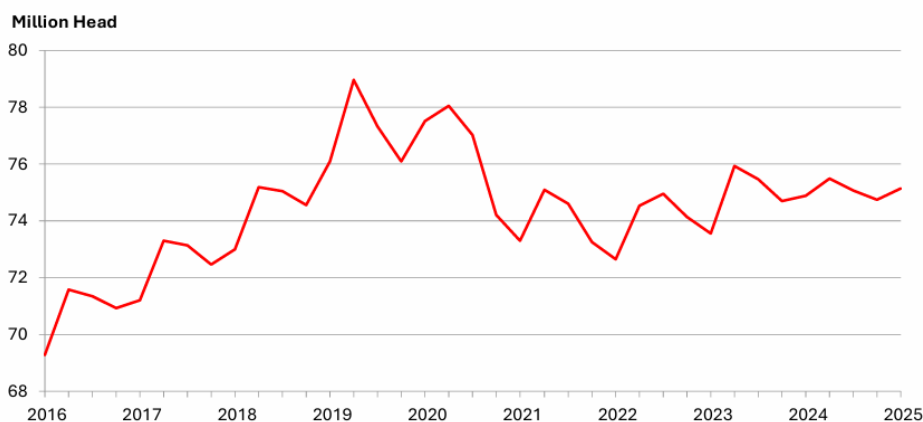
about 375 cents by July before leveling off. This year, prices started at that same elevated level in January and climbed further to between 428 and 431 cents per pound by mid-summer, a 14 percent increase over last year’s peak and roughly 65 percent above the five-year average. The cow-beef cutout value has likewise reached unprecedented territory, exceeding \$340 per hundredweight, a clear indicator of the tight supply environment.¹⁹

National Hog Trends

As of June 1, 2025, the total U.S. hog and pig inventory stood at 75.1 million head, representing a slight increase from the same period in 2024 and a 1% rise compared to March 2025. Within this total, the breeding herd was estimated at 5.98 million head, a marginal decline year-over-year that reflects producers’ cautious approach to expansion. The market hog inventory reached 69.1 million head, showing a modest gain from last year, largely supported by improvements in farrowing efficiency and pig survival rates.

Figure 5: 2016-2025 Hog and Pigs Inventory

**Quarterly Hogs and Pigs Inventory - United States:
June 1**



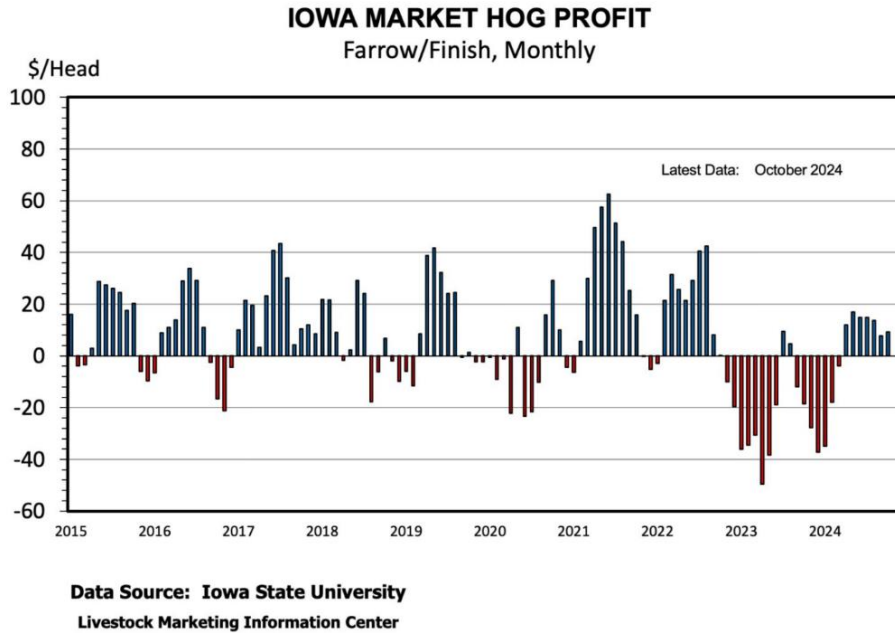
For 2025, pork production is forecast at 27.7 billion pounds, a downward revision from the previous month’s projection. This adjustment is due to lighter dressed weights and slower slaughter rates anticipated in the third and fourth quarters. In July 2025, federally inspected slaughter totaled 10.2 million head, a 3.9% decrease from July 2024. Average dressed weights have trended slightly below last year’s levels, as many producers opted to market hogs earlier to take advantage of favorable price conditions.

Prices have strengthened notably. The national producer-sold hog price for the third quarter of 2025 is forecast at \$77 per hundredweight, a 17% increase compared to the same quarter in 2024. In July alone, the average price reached \$78.20 per hundredweight, up 16% year-over-year. Wholesale pork cutout values have also risen, averaging \$115.03 per hundredweight in July, a 15% increase from last year, with pork bellies contributing the largest share of the gain. Export demand remains robust, with June 2025 pork exports totaling 552 million pounds, up 5% from a year earlier, driven by strong shipments to Mexico and South Korea.

¹⁹ <https://www.ams.usda.gov/mnreports/lstdcbs.pdf>

Health challenges have also shaped the market outlook. The second quarter of 2025 recorded the highest rate of Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) outbreaks in wean-to-market herds since 2013. This has tightened supplies and provided additional upward pressure on prices, particularly in the latter half of the year.

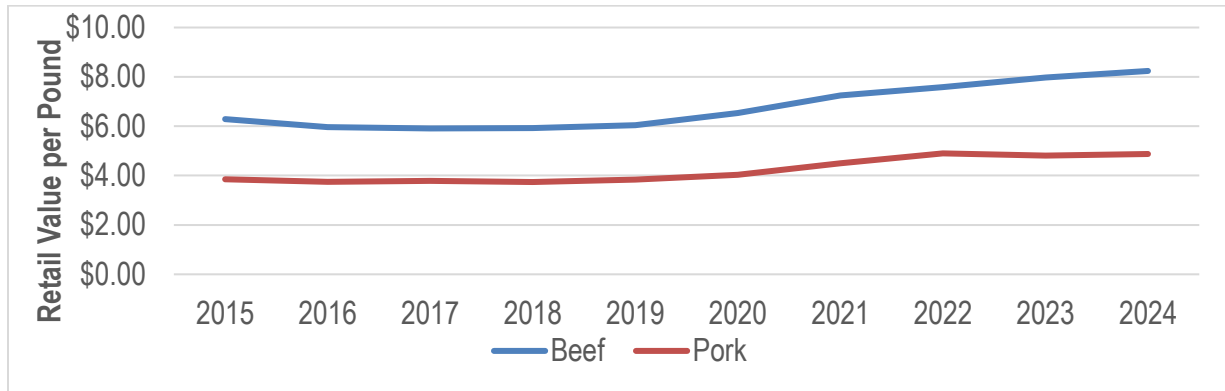
Figure 6: Hog Market Trends



Retail Meat Pricing

Retail prices for meat products, such as beef and pork, have fluctuated over the years based on supply and processing capacity. As shown in the figure below, the prices for pork and beef remained relatively steady from 2015 until 2020, when prices began to rise. This upward trend continued through 2021 and 2022 due to interruptions in the supply chain from the COVID-19 pandemic and rising costs necessary goods such as feed. Post-pandemic, continued impacts of a reduction in processing capacity as well as lower herd sizes have compounded on rising production costs have seen prices continue to rise.

Figure 7: Historical Retail Beef and Pork Prices, 2015-2024²⁰



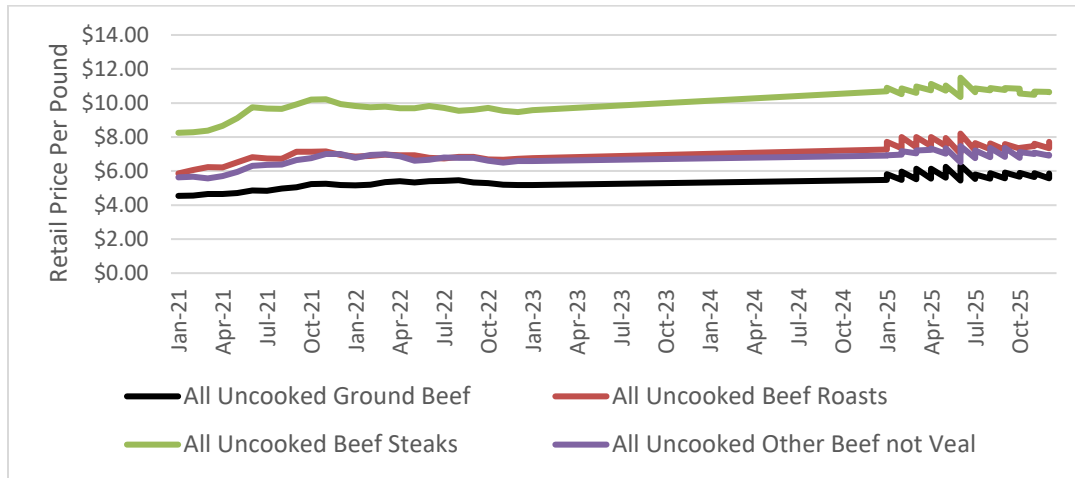
According to the USDA Economic Research Service’s Meat Price Spreads, the annual average retail value of beef in 2015 was approximately \$6.29 per pound. Prices reached their lowest point in 2017 at \$5.91 per pound, but have steadily increased since then. By 2023, the average retail value climbed to \$8.00 per pound, marking a nearly 35.3% increase over the six-year period.

The following tables provide a breakdown of beef prices by product category over the two-year period from January 2021 through January 2023, using data from the USDA Economic Research Service’s Meat Price Spread. Any gaps or breaks in the figures indicate periods where data was not reported by the USDA.

All beef categories followed similar pricing trends during this time, with noticeable fluctuations. Prices rose throughout 2021 due to lingering supply chain challenges, then began leveling out or slightly declining in 2022 as pandemic-related disruptions eased. However, inflation and elevated input costs, particularly feed, have sustained higher beef prices. These pressures have contributed to a continued upward trajectory in retail prices, which reached \$8.00 per pound in 2023 and are expected to remain elevated through 2025. This increase represents a significant shift from the \$5.91 per pound observed in 2017 and underscores ongoing cost challenges across the beef industry.

²⁰ USDA ERS (2025). Meat Price Spreads: Choice beef values and spread and the all-fresh retail value; Pork values and spreads. Retrieved from <https://www.ers.usda.gov/data-products/meat-price-spreads/>

Figure 8: Retail Beef Prices by Product, 2021-2025



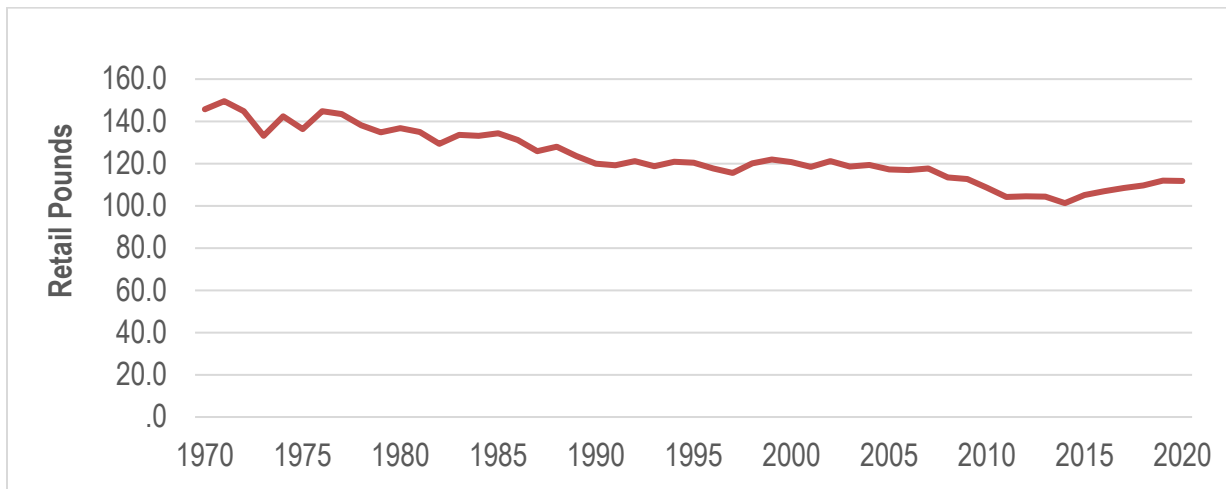
Historically, beef steaks command a higher price point than all other cuts or retail products reported by the USDA. This category includes all round-steak, sirloin, and stew beef. In January 2021, the average price for all steaks was \$8.25 per pound; by November 2021, the price had increased to a high of \$10.23 per pound, a change of almost 24% over ten months. Since then, the price has generally decreased, reaching \$9.58 in January of 2023. In total, the retail value of beef steak increased by 16% between January 2021 and January 2023.

Ground beef and ground chuck generally command the lowest price point out of the beef products reported. The average price for all ground beef and ground chuck was \$4.54 per pound in January 2021, reaching its highest price point in August 2022 of \$5.45, an increase of 20%. The price has slowly decreased since then, dropping to \$5.17 per pound in January 2023. During these two years, the average price for all ground beef and ground chuck increased by almost 14%.

Red Meat Demand and Consumption

Over the past five decades, U.S. consumption of red meat and poultry has generally trended upward, with poultry driving much of the growth. Since 1970, poultry consumption has surged by over 134%, reflecting changing consumer preferences, improved production efficiencies, and aggressive marketing. In contrast, red meat consumption has declined by more than 23%, influenced by health concerns, price fluctuations, and evolving dietary trends.

Figure 9: Total Red Meat Disappearance 1970-2020



From 1999 to 2006, total per capita meat consumption averaged over 250 pounds annually, peaking at 264 pounds in 2020. This period of growth was followed by a gradual decline, with USDA data showing a projected drop from 227.7 pounds in 2024 to 226.1 pounds in 2025. While beef and pork remain staple proteins in many American households, their consumption is expected to decrease—beef disappearance is projected to fall from 58.2 to 56.3 pounds per capita, and pork consumption, though slightly more stable, is forecasted to rise modestly to 51.4 pounds.

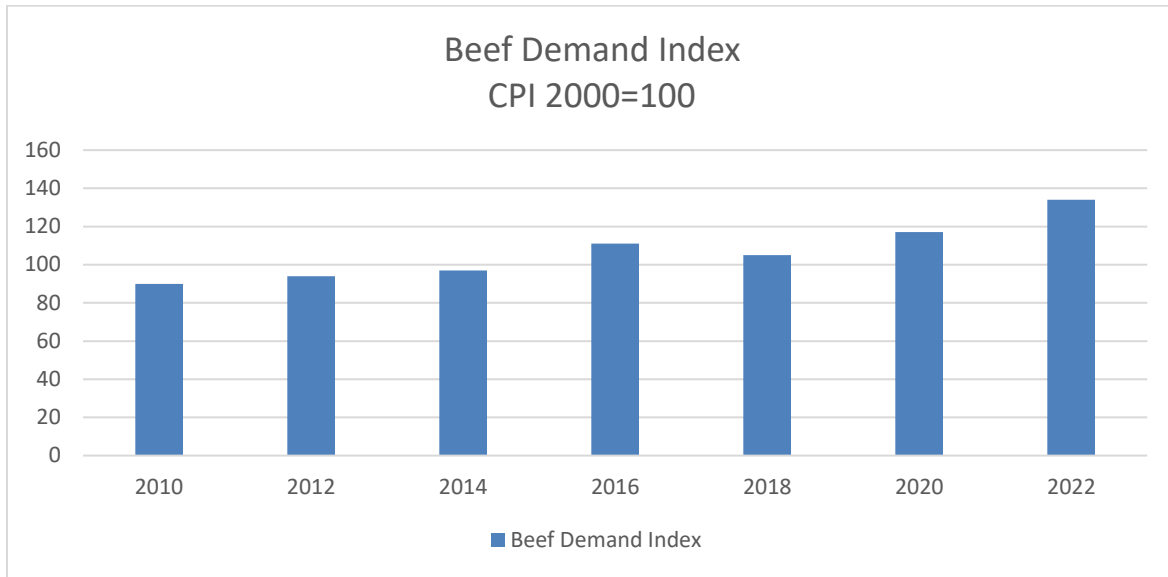
Meanwhile, broiler consumption continues to climb, with projections indicating an increase from 101.3 to 102.0 pounds per capita. This modest uptick underscores poultry’s enduring popularity, affordability, and versatility in U.S. diets. Taken together, these trends reflect a subtle but meaningful shift in consumer behavior, with implications for producers, processors, and retailers across the meat industry.

Over the past 66 years, retail meat availability has grown from just over 149 pounds to more than 193 pounds per person, reflecting long-term shifts in production and consumer access. These trends carry important implications for producers and livestock workers, as they signal evolving demand patterns and potential market adjustments.

According to the Bureau of Labor Statistics’ demand index, beef demand reached a record high in Q4 of 2021 with an index value of 138. Although demand has moderated since then, retail beef demand remained historically strong through 2023, supported by tight cattle supplies and elevated consumer prices.²¹

²¹ <https://ers.usda.gov/sites/default/files/laserfiche/outlooks/110972/LDP-M-368.pdf?v=70768>

Figure 10: Retail All Fresh Meat Demand Index



Data Source: Bureau of Labor Statistics, USDA-ERA

The table below highlights the data from USDA ERS’s October 2024 red meat per capita disappearance data for 2024, and forecasts for Q1-Q3 and annual totals 2025.²²

Table 5: Per Capita Meat Disappearance Forecast, Retail lbs.

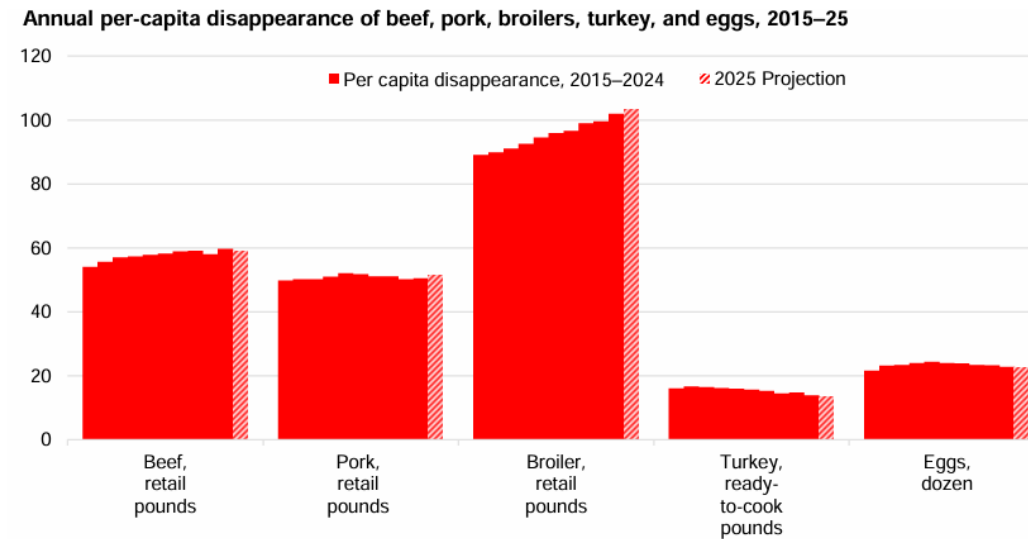
	2024	2025				
	Annual	Q1	Q2	Q3	Q4	Annual
Beef	59.2	14.8	14.5	14.4	N/A	57.5
Total Meat /Poultry	229.0	56.4	56.3	57.6	N/A	228.5

The table shows that per capita beef and total red meat/poultry are forecasted to see a slight decline overall from 2024 to 2025, from 59.2 pounds per capita to 57.5. This is alongside a slight overall decline in the forecasted disappearance of all meat and poultry.

Despite the forecasted decline in disappearance in the coming year, there has been an overall trend of increased meat disappearance over the past decade. The chart below, which was updated with latest data and originally appeared in the USDA's Economic Research Service's Livestock, Dairy, and Poultry Outlook, March 2022, illustrates this increase with forecast numbers.

²²USDA ERS. Livestock, Dairy, and Poultry Outlook. October 2024. <https://www.ers.usda.gov/webdocs/outlooks/110235/ldp-m-364.pdf?v=1587.4>

Figure 11: Retail Weight Per Capita Disappearance 2015-2025



Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*.

Per capita availability is calculated by subtracting exports and ending stocks from total domestic supply (which includes beginning stocks, imports, and production) and dividing by population. According to USDA projections for 2025, beef consumption is expected to decline from 58.2 pounds per capita in 2024 to 56.3 pounds, despite a slight upward adjustment from earlier forecasts. Pork consumption is projected to rise modestly to 51.4 pounds per capita, while broiler meat continues its long-standing dominance as the most consumed animal product, with consumption forecasted at 103.1 pounds per person. In contrast, turkey consumption continues to trend downward, reaching an estimated 13.4 pounds per capita. Egg consumption is also projected to dip slightly to 270.7 eggs per person, largely due to production challenges stemming from Highly Pathogenic Avian Influenza (HPAI). These consumption patterns reflect evolving consumer preferences, biological pressures, and economic factors that producers must consider when evaluating future market demand.

Maryland Red Meat and Livestock Industry

Maryland's red meat industry is regionally diverse and primarily composed of beef and pork production alongside goat and sheep, with the 2022 Census of Agriculture reporting 196,911 head of cattle and calves statewide, a beef-cow inventory of 40,470, 21,882 hogs and pigs, and 10,587 sheep and lambs.²³

Production and farm structure are uneven across the state, with higher livestock inventories concentrated in more rural counties and southern regions that support cow-calf operations and small-scale finishing, while many suburban and peri-urban counties have relatively small livestock counts and few commercial broiler operations. The state's red meat value chain is constrained by limited USDA-inspected slaughter and processing capacity relative to local and regional demand, industry consolidation at the national level that centralizes slaughter and fabrication in multi-state firms, and persistent cost pressures from feed, labor, energy, and regulatory compliance that compress margins for smaller producers. These constraints increase reliance on out-of-state or distant processing facilities, raise logistical and cold-chain costs, and create barriers for producers seeking inspected, market-ready product for wholesale and institutional buyers.

Opportunities for Maryland producers include developing value-added and direct-to-consumer channels that leverage proximity to major mid-Atlantic population centers, expanding niche markets for grass-fed, heritage, and specialty red meats, and pursuing cooperative or mobile-slaughter solutions to improve access to inspected processing and capture greater farm-level value. Policy and investment priorities that would strengthen the sector include targeted expansion of inspected processing capacity, streamlined permitting and regulatory support for small processors, workforce development in meatpacking and inspection, and public-private investment in aggregation, cold-chain logistics, and marketing support that link producers to retail and foodservice demand; implementing these measures would help Maryland producers scale operations, increase resilience to market concentration, and preserve opportunities for specialty and direct-market producers while better serving regional demand.

Maryland Department of Agriculture Health Programs

The Maryland Department of Agriculture's Animal Health Program runs a wide range of disease prevention, surveillance, and response services for livestock, poultry, equids, and other species, including regulatory oversight (reportable disease control and movement orders), flock and herd registration programs, outbreak investigation and emergency response, and outreach/training for producers and veterinarians; it also operates the Frederick Animal Health Diagnostic Laboratory for statewide diagnostic testing (necropsy, histopathology, bacteriology and species-specific testing) and maintains species-specific guidance (poultry biosecurity, equine strangles guidance, swine, small ruminants, etc.),



²³

https://data.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1,_Chapter_1_State_Level/Maryland/

authorized testing agents for programs such as NPIP, and sick-bird reporting for backyard flocks.²⁴

In a strategic move to enhance disease surveillance and response capabilities, the MDA has broadened its diagnostic offerings through the Frederick Animal Health Laboratory. This expansion includes new testing services for poultry, livestock, and aquaculture, such as necropsy evaluations, histopathology, and bacteriology. These additions aim to provide faster, more comprehensive insights into animal health issues, helping producers and veterinarians make informed decisions about treatment and biosecurity. The initiative aligns with Maryland's broader agricultural goals by supporting animal welfare, food safety, and economic resilience in rural communities. The department emphasized that these services are especially critical for early detection of emerging diseases and for maintaining the health of commercial and backyard herds and flocks. By investing in upgraded laboratory capabilities and outreach, the MDA is positioning itself as a more robust partner in safeguarding the state's agricultural assets.²⁵

Cattle and Beef Production

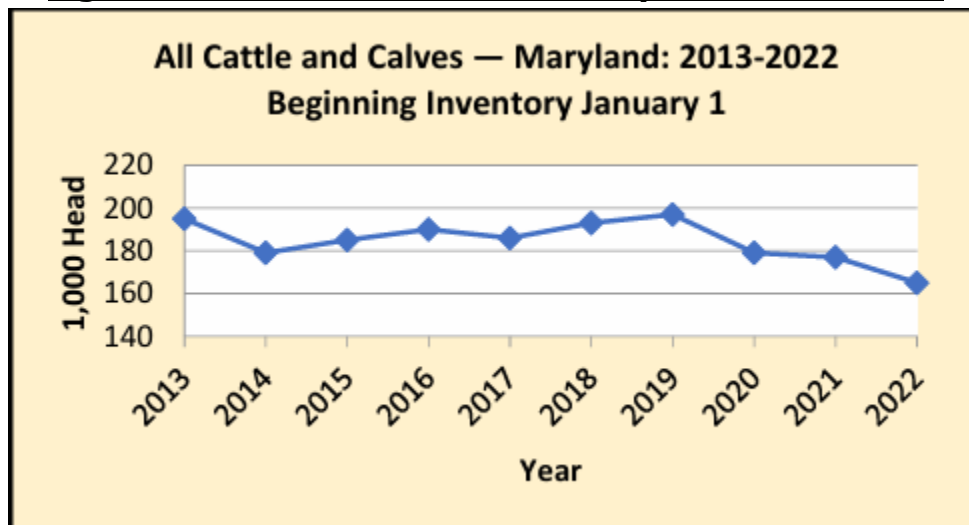
Cattle farming in Maryland is not only a significant contributor to the state's economy but also plays a crucial role in maintaining the agricultural landscape. The state's cattle are raised across a variety of farm types, ranging from small family-operated farms to larger commercial operations. Maryland's diverse geography, from the rolling hills of the Piedmont to the flat coastal plains, provides a variety of environments conducive to cattle farming. This diversity supports both beef and dairy operations, contributing to the overall health and sustainability of the state's agriculture.

The figure below illustrates a general decline in the inventory of cattle and calves in Maryland as reported by the most recent Maryland Annual Statistics Bulletin showcasing 2013-2022 point in time data collected by the National Agricultural Statistics Service. Starting at nearly 200,000 head in 2013, the inventory decreased significantly to around 180,000 head by 2014. From 2014 to 2019, the number of cattle and calves remained relatively stable, fluctuating between 200,000 and 160,000 head. However, after a slight increase in 2018 and 2019, the inventory dropped again, reaching approximately 165,000 head by January 1, 2022. Overall, the graph highlights a downward trend in Maryland's cattle and calf inventory over the decade, with notable periods of stability in the mid-2010s.

²⁴ <https://mda.maryland.gov/AnimalHealth/Pages/default.aspx>

²⁵ <https://www.feedstrategy.com/animal-health-veterinary/news/15770750/maryland-department-of-ag-expands-animal-health-diagnostic-services>

Figure 12: All Cattle and Calves Maryland 2013-2022²⁶



Economic Impact and Future Outlook

The \$91.5 million in cash receipts for cattle and calves in 2023 illustrates the significant economic impact of cattle farming on Maryland's agricultural sector. This revenue supports not only farmers but also a range of related industries, including feed suppliers, veterinarians, and meat processors. The continued demand for beef, coupled with rising beef prices, suggests that the cattle industry in Maryland is likely to remain a stable and profitable sector in the coming years.

The 40,000 beef cows as of January 1, 2022, highlight the strength of Maryland's beef industry. Many farms are practicing sustainable and environmentally conscious farming methods. These practices are increasingly important as consumers demand higher-quality and ethically produced meat products. The beef industry in Maryland also benefits from the proximity to major urban markets, including Baltimore and Washington, D.C., allowing producers to tap into a large and diverse consumer base.

Looking forward, Maryland's cattle industry faces both opportunities and challenges. On the one hand, the growing interest in locally sourced and sustainably raised beef presents an opportunity for Maryland farmers to differentiate their products and command premium prices. On the other hand, the industry must navigate challenges such as fluctuating feed costs, environmental regulations, and the need to adopt new technologies to improve efficiency and sustainability.

Hog Production

Hog farming, while a smaller segment of Maryland's agricultural industry, plays a vital role in the state's economy and rural communities. The hog farms in Maryland are typically family-owned operations, often focusing on producing pork for local and regional markets. Maryland's hog farms range in size, with some farmers raising hogs as part of diversified operations that include other livestock and crops. With 21,000 hogs as of December 1, 2022, and \$6.9 million in

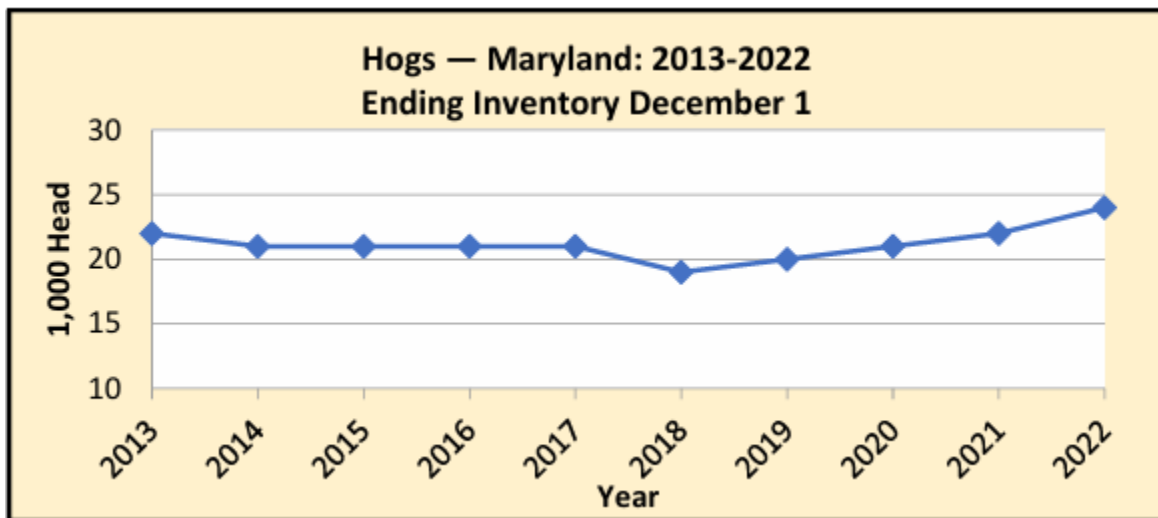
²⁶ https://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/Annual_Statistical_Bulletin/2022/2022-2023_MD%20Bulletin.pdf

cash receipts in 2022, the industry provides a stable source of income for Maryland farmers and contributes to the state's overall agricultural output. As consumer preferences continue to evolve, Maryland's hog farmers have opportunities to innovate and grow, ensuring that this traditional industry remains a valuable part of the state's agricultural landscape.²⁷

The hogs raised in Maryland are primarily for meat production, supplying fresh pork to local grocery stores, butcher shops, and direct-to-consumer markets. The state's proximity to major urban centers, such as Baltimore and Washington, D.C., provides hog farmers with access to a large and diverse customer base, driving demand for locally raised pork products.

The figure below shows the ending inventory of hogs in Maryland over ten years of the most recently available data from the Maryland Annual Statistical Bulletin. The inventory started at about 22,000 head in 2013 and saw a slight decrease to around 21,000 head by 2014. After 2014, the inventory experienced minor fluctuations, generally staying within the 20,000 to 22,000 head range. There was a noticeable dip around 2018, where the inventory dropped to approximately 19,000 head. However, by 2021, the inventory recovered slightly, returning to about 22,000 head and continued to rise through 2022. Overall, the graph indicates that while the hog inventory in Maryland has remained relatively stable over the decade, it has experienced some minor variations with a slight downward trend followed by a recovery.

Figure 13: Maryland Hog Inventory 2013-2022²⁸



Economic Impact of Hog Farming

As of December 1, 2022, hog farming contributed \$6.9 million in cash receipts, reflecting its importance to Maryland's agricultural economy. Although this figure is modest compared to other livestock sectors, it represents a significant source of income for the state's hog farmers. The revenue generated from hog farming supports not only the farmers themselves but also a network of related industries, including feed suppliers, veterinarians, and meat processors.

²⁷ <https://msa.maryland.gov/msa/mdmanual/01glance/html/agri.html>

²⁸ https://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/Annual_Statistical_Bulletin/2022/2022-2023_MD%20Bulletin.pdf

The market for pork remains strong, with consumers increasingly seeking out locally sourced and sustainably raised meat. This trend aligns with the broader movement toward farm-to-table dining and the desire for greater transparency in food production. Maryland hog farmers are well-positioned to meet this demand, particularly as consumers become more interested in the origins and quality of their food.

Challenges and Opportunities

Hog farming in Maryland, like in many other states, faces a range of challenges, including fluctuating feed costs, environmental regulations, and the need to adopt modern farming practices. However, these challenges also present opportunities for innovation. Maryland's hog farmers are increasingly exploring sustainable farming methods, such as improved waste management systems and environmentally friendly practices, to reduce their environmental impact and meet regulatory requirements.

Additionally, the growing interest in heritage breeds and specialty pork products offers Maryland farmers a niche market opportunity. Heritage breed pork is often prized for its flavor and quality, and consumers are willing to pay a premium for these products. By focusing on quality and sustainability, Maryland hog farmers can differentiate themselves in a competitive market and secure higher prices for their products.

Goats and Sheep

The 2022 Census of Agriculture underscores the importance of goats and sheep in Maryland's agricultural landscape. From dairy goat operations to meat and fiber production, these animals contribute to the state's economy and the sustainability of its rural areas. As consumer interest in alternative and locally produced agricultural products grows, Maryland's goat and sheep farmers are likely to see continued opportunities for growth and innovation in the years ahead.

The 2022 Census of Agriculture provides a detailed snapshot of the goat and sheep populations in Maryland, reflecting their roles in the state's diverse agricultural landscape. According to the census, Maryland was home to approximately 3,041 milk goats, 9,329 goats raised for meat and other purposes, and 18,912 sheep and lambs.

Meat Goats and Other Goat Purposes

The census also recorded 9,329 goats in Maryland raised primarily for meat and other purposes, such as fiber production and land management. Meat goats, particularly those of the Boer breed, are well-suited to Maryland's climate and are increasingly raised for their lean, nutritious meat, which is sought after by various ethnic communities and health-conscious consumers.

The versatility of goats also makes them valuable for other agricultural purposes. Some farmers raise goats for their fiber, such as cashmere or mohair, while others use goats for land management, where their natural grazing habits help control weeds and underbrush, reducing the risk of wildfires and improving pasture quality. This adaptability underscores the importance of goats in Maryland's agriculture, where they contribute to both the economy and environmental sustainability.

Sheep and Lambs

Maryland's sheep population, totaling 18,912, highlights the significance of sheep farming in the state. Sheep are raised primarily for their meat (lamb and mutton) and wool, with some operations also focusing on breeding and raising sheep for show or specialty markets. The sheep industry in Maryland benefits from the state's varied terrain, which is conducive to grazing and supports a range of sheep breeds.

Lamb, in particular, is a valued product in Maryland, often featured in local cuisine and highly regarded in markets serving ethnic communities. The state's sheep farmers are known for their commitment to quality, with many employing sustainable grazing practices that not only support the health of their flocks but also contribute to soil conservation and biodiversity.

Economic and Agricultural Importance

Goats and sheep, while representing smaller segments of Maryland's agricultural economy compared to cattle, play crucial roles in diversifying farm income and sustaining rural communities. The presence of goats and sheep on farms can complement other agricultural activities, providing farmers with additional revenue streams and enhancing the overall resilience of their operations.

The demand for goat and sheep products, such as meat, milk, wool, and fiber, is driven by changing consumer preferences toward sustainable, locally sourced, and specialty products. As Maryland's agricultural industry continues to evolve, the goat and sheep sectors are well-positioned to meet these demands, offering products that align with current market trends.

Maryland Project Counties

The following section provides details on the agricultural industries of the Southern Maryland project area counties and their red meat livestock sector.

Table 6: Livestock Inventory by County - Maryland²⁹

Location	# of Farms	Cattle & Calves Inventory	Beef Cows	Hogs & Pigs Inventory	Sheep & Lambs Inventory	Broilers
Maryland (State)	12,550	152,394	40,935	20,219	18,912	277,949,940
Anne Arundel	454	862	467	72	482	3,500
Calvert	285	813	D	138	294	510,540
Charles	371	1,234	732	333	408	D
Prince George's	381	1,387	636	254	332	6,897
St. Mary's	656	3,276	1,454	2,537	434	D

²⁹

https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1_Chapter_2_County_Level/Maryland/st24_2_001_001.pdf

Anne Arundel County

Anne Arundel County supports a modest but active livestock sector characterized primarily by small-scale cow-calf operations, beef cattle finishing, and specialty sheep and goat enterprises. According to the 2022 Census of Agriculture, the county is home to 862 head of cattle and calves, including 467 beef cows, along with 72 hogs and pigs and 482 sheep and lambs. This is the largest sheep and lamb inventory among the project area counties.³⁰ There has been a 21% decline in the county's cattle inventory from 2017 levels (1,150 head), reflecting ongoing development pressure and farmland conversion in this rapidly urbanizing county.³¹ Despite these challenges, Anne Arundel's livestock producers maintain connections to regional marketing channels and rely on inspected facilities outside the county for slaughter and fabrication to reach wholesale, restaurant, and direct-to-consumer buyers.³²

The county's broader agricultural sector has shown notable resilience and growth in recent years. The 2022 Census of Agriculture reports 454 farms spanning 36,003 acres and generating over \$25 million in product sales, marking a 16% increase in farm numbers and a 33% expansion in farmland since 2017. The average farm size is 79 acres, and crop production dominates the market, accounting for 78% of sales, while livestock, poultry, and related products make up 22%. Farms earned an average of \$56,097 in product sales per operation, with net cash farm income totaling \$2.25 million across the sector.

Anne Arundel's agricultural economy is supported by strategic farmland preservation efforts and diversified production systems. The county's farms include cropland, pastureland, and woodland, with significant emphasis on direct-to-consumer sales channels including farmers markets and agritourism. The Anne Arundel County Agriculture Commission and the Economic Development Corporation provide policy guidance and business development support aimed at sustaining commercially viable farm operations within the context of suburban growth.³³ County agricultural programs emphasize soil conservation, equine operations support, and expanding market access for local producers. The proximity to Baltimore and Washington, D.C. metropolitan areas presents both challenges in terms of development pressure and opportunities for premium local food markets.

Calvert County

Calvert County's livestock sector consists primarily of family-scale operations focused on cow-calf production, small pork enterprises, and niche sheep farming that serve local demand and direct-to-consumer markets. The 2022 Census of Agriculture recorded 813 head of cattle and calves in the county, along with 138 hogs and pigs and 294 sheep and lambs. Cattle inventory has remained relatively stable, showing only modest variation from 2017 levels (1,312 head in the 2017 census). Local livestock producers face similar processing access challenges as other Southern Maryland counties, typically relying on regional facilities for USDA-inspected

³⁰ U.S. Department of Agriculture, National Agricultural Statistics Service. 2022 Census of Agriculture - County Data. Published February 2024. Available at: <https://www.nass.usda.gov/Publications/AgCensus/2022/>

³¹ U.S. Department of Agriculture, National Agricultural Statistics Service. 2017 Census of Agriculture - County Data. Published April 2019. Available at: <https://www.nass.usda.gov/Publications/AgCensus/2017/>

³² <https://www.aacounty.org/agriculture-commission>

³³ <https://www.aaec.org/agriculture/agricultural-industry-information/>

slaughter and cut-and-wrap services. County agricultural organizations and regional networks provide marketing support and processing facility referrals to help producers navigate these logistical constraints and capture greater value from finished animals.³⁴

The county's agricultural economy demonstrates both stability and community engagement. According to the 2022 Census of Agriculture, Calvert County is home to 285 farms spread across 24,654 acres, with an average farm size of 87 acres. Nearly half of all farms engage in direct-to-consumer sales, reflecting strong local market connections and consumer interest in locally produced food. The county generated over \$15 million in product sales, with crop production accounting for 72.2% of total agricultural sales and livestock, poultry, and related products comprising 27.8%. Most farmland is dedicated to cropland and pasture (64.1%), with woodland comprising nearly a quarter of agricultural land.

Calvert County's agricultural sector benefits from well-established support systems and infrastructure. Internet access among farm operators stands at 82%, facilitating modern farm management and marketing practices. The county maintains active agricultural preservation programs and provides technical assistance through the Calvert County Agricultural Preservation Advisory Board and University of Maryland Extension. Local farmers markets and farm-to-institution programs connect producers with schools, restaurants, and institutional buyers throughout Southern Maryland. The county's agricultural economy emphasizes sustainable practices, land conservation, and maintaining the rural character that defines much of Calvert's landscape. These factors, combined with proximity to regional population centers, position Calvert County's agriculture sector for continued viability despite ongoing development pressures in the broader Southern Maryland region.

Charles County

Charles County maintains a substantial livestock sector with notable growth in recent years, positioning it as an important contributor to regional agricultural production. The 2022 Census of Agriculture reports 1,234 head of cattle and calves in the county, including 732 beef cows, along with 333 hogs and pigs and 408 sheep and lambs. Among the five counties in this study, Charles ranks third in total cattle inventory but second in beef cow numbers and hog inventory. Though official data has not been reported, recent agricultural reports suggest an increase in head since the last census, potentially reflecting renewed investment in beef production or improved census response rates. The county's substantial livestock base reflects both available agricultural land and established cow-calf operations that support local finishing systems. However, like other counties in the region, Charles County producers face limited access to nearby USDA-inspected processing facilities, creating logistical challenges and constraining opportunities to participate in wholesale and institutional markets that require inspected meat products.

Charles County's broader agricultural sector demonstrates economic significance and production diversity. According to the 2022 Census of Agriculture, the county is home to 371 farms spanning 47,747 acres and generating \$20.7 million in total agricultural sales. The average farm size is 129 acres, considerably larger than neighboring Anne Arundel and Calvert counties, reflecting the county's more rural character and greater concentration of traditional agricultural

³⁴ <https://www.calvertag.com/>

operations. The county supports two farmers markets that provide direct marketing venues for local producers, connecting farmers with consumers seeking locally grown and raised products.

The county's agricultural economy benefits from its position as one of Southern Maryland's more rural jurisdictions, with substantial acreage dedicated to field crops, pastureland, and livestock production. Charles County agricultural programs, coordinated through the County Extension Office and local farm organizations, provide technical assistance in areas including soil conservation, livestock management, and business planning. The Charles County Farm Bureau and agricultural advisory committees work to maintain the viability of farming operations and advocate for policies that support agricultural land preservation. Despite development pressure along major transportation corridors, much of Charles County retains its agricultural character, and the livestock sector in particular shows signs of expansion that could support value-added processing and marketing initiatives. The county's agricultural infrastructure and producer base position it as a potential anchor for regional food system development, particularly for meat processing services that would serve multiple Southern Maryland counties.

Prince George's County

Prince George's County maintains a diverse but evolving livestock sector within the context of substantial suburban development and agricultural land loss. The 2022 Census of Agriculture reports 1,387 head of cattle and calves in the county, including 636 beef cows, along with 254 hogs and pigs and 332 sheep and lambs. This is the second largest cattle inventory among the five counties in this study. These figures represent significant declines from 2017 levels, when the county reported 3,345 head of cattle, illustrating the ongoing impact of urbanization on traditional livestock operations. The cattle inventory decline from 2017 to 2022 shows a drop from 3,345 to 1,387 head, consistent with long-term agricultural land conversion to residential and commercial development. Despite these pressures, remaining livestock producers continue to operate, primarily serving direct-to-consumer and local markets, and face similar processing access challenges as other regional producers seeking USDA-inspected slaughter and fabrication services.

The county's agricultural sector remains economically significant despite ongoing development pressures. According to the 2022 Census of Agriculture, Prince George's County is home to 381 farms spanning 32,892 acres and generating over \$22.6 million in product sales (USDA Census of Agriculture, 2022). This reflects a modest increase in farm numbers since 2017, though total farmland has declined slightly. The average farm size is 86 acres, and crop production dominates, accounting for 82% of total sales, while livestock, poultry, and related products contribute 18%. Farms in the county average \$59,470 in product sales, and the sector's net cash farm income totals \$4.09 million (a 33% increase from 2017), suggesting that remaining operations are achieving greater economic viability.

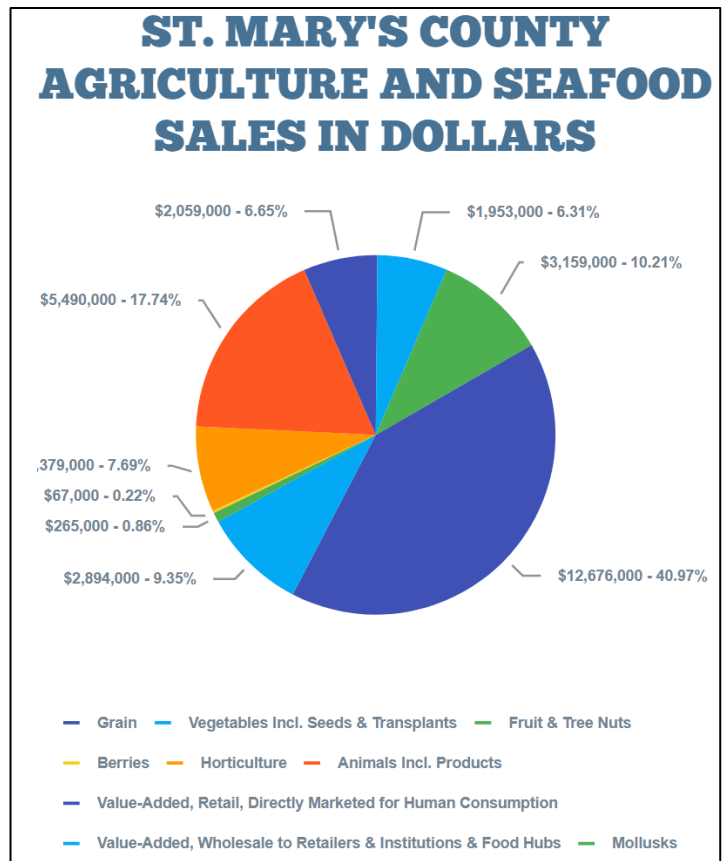
Prince George's County has emerged as a leader in urban and peri-urban agriculture innovation. The county supports a growing movement that includes high-tunnel vegetable production, beekeeping, Afro-Caribbean specialty crops, and small-scale livestock operations that serve ethnic and immigrant communities. The Prince George's Soil Conservation District promotes urban farm development and conservation practices through its Urban Agricultural Conservation

program, which provides technical assistance and cost-share support for both traditional and non-traditional farming operations. The Agricultural Resources Advisory Commission connects farmers with government programs, technical assistance, and policy advocacy. Additional outreach and education are provided by the University of Maryland Extension and the Maryland Farm Bureau, which offer resources tailored to both conventional farmers and emerging urban agriculture entrepreneurs.³⁵ This combination of traditional livestock and crop production alongside innovative urban agriculture positions Prince George’s County agriculture as a laboratory for food system development that bridges rural and urban contexts, though challenges remain in preserving sufficient agricultural land to sustain long-term viability.

St. Mary’s County

St. Mary’s County maintains the largest and most diverse livestock sector among the five Southern Maryland counties, serving as a regional anchor for cattle, hog, and sheep production. The 2022 Census of Agriculture reports 3,276 head of cattle and calves, including 1,454 beef cows, along with 2,537 hogs and pigs and 434 sheep and lambs—by far the highest inventories in the study area. Cattle numbers show moderate growth from 2017 levels (2,607 head), while hog inventory has declined sharply from 968 head in 2017 to just 82 in 2022, mirroring broader regional trends away from small-scale pork production. The county’s robust cattle base supports an active cow-calf sector with complementary finishing operations, and the presence of West Forty Market provides local producers with greater processing access than is available elsewhere in Southern Maryland. Despite this advantage, the single facility’s limited capacity and service offerings underscore ongoing regional gaps in processing infrastructure that constrain producer market access and value capture.

St. Mary’s County’s agricultural sector demonstrates significant economic scale and production diversity. The 2022 Census of Agriculture recorded 656 farms in the county generating substantial agricultural revenue across multiple sectors. According to county agricultural sales data, total agricultural and seafood sales reached approximately \$30.9 million, with a diverse product mix that includes grain production (\$5.5 million or 17.7% of sales), berries (\$3.2 million or 10.2%), aquaculture and seafood (\$2.9 million or 9.4%), vegetables (\$2.1



³⁵ <https://extension.umd.edu/locations/prince-georges/>

million or 6.7%), and fruit and tree nuts (\$2.0 million or 6.3%). The largest category is classified as “miscellaneous” at \$12.7 million (41%), indicating a wide range of smaller product lines and diversified farming operations. Value-added production channels represent a smaller but notable segment, with wholesale value-added sales to retailers and institutions totaling \$679,000 (2.2%), direct-market and retail value-added sales at \$379,000 (1.2%), and other value-added activity at \$265,000 (0.9%).³⁶

The county’s agricultural economy is underpinned by strong land use planning and natural resource management. St. Mary’s County Comprehensive Plan designates approximately 80% of the county’s land area for resource-based uses and establishes conservation goals to preserve 60,000 acres of farmland within more than 78,000 rural acres, demonstrating a clear policy commitment to protecting agricultural land and maintaining rural character.³⁷ This planning framework supports the viability of both terrestrial agriculture and the county’s leadership role in Maryland aquaculture. St. Mary’s holds 35% of the state’s aquaculture leases and 32.9% of leased acreage based on Maryland Department of Natural Resources data from 2018-2020, making it a dual hub for land-based and water-based food production.³⁸

St. Mary’s County benefits from established agricultural support systems including the Southern Maryland Agricultural Development Commission (SMADC), University of Maryland Extension, St. Mary’s County Farm Bureau, and the Soil Conservation District. These organizations provide technical assistance, marketing support, farmland preservation programs, and policy advocacy. The county’s agricultural producers have historically worked through regional cooperative efforts and producer networks, and SMADC previously explored development of a Regional Agricultural Center focused on meat processing, an initiative that generated stakeholder interest but did not advance to implementation. The current feasibility study builds on this prior work and recognizes St. Mary’s County’s critical role as the livestock production center of Southern Maryland. The county’s combination of production scale, existing processing infrastructure, agricultural land protection policies, and organizational capacity positions it as a key partner and potential service area for any regional agricultural processing facility developed to serve the five-county region.

³⁶ <https://www.yesstmarysmd.com/industries/Agriculture-and-Aquaculture/>

³⁷ St. Mary's County, Maryland. St. Mary's County Comprehensive Plan. Adopted 2019. St. Mary's County Department of Land Use & Growth Management, Leonardtown, MD.

³⁸ Maryland Department of Natural Resources. Shellfish Aquaculture Lease Application Data, January 2018 through February 2020. Annapolis, MD.

REGIONAL COMMERCIAL KITCHEN FACILITIES

The Anne Arundel RAC has the potential to offer value-added processing services to agricultural producers and food entrepreneurs across the region, including shared-use commercial kitchen space, cold storage, and a wide variety of processing equipment available to the community. Access to licensed commercial kitchen space is often the critical barrier between a farm product and a legally marketable food product—without it, producers cannot legally manufacture, label, or sell processed food items. While Prince George’s County, the northernmost county in the study area, has two commercial kitchen facilities located near its border with Washington D.C., the more rural southern counties have no comparable infrastructure. Producers in Anne Arundel, Calvert, Charles, and St. Mary’s Counties seeking licensed commercial production space must currently travel to facilities in Baltimore, the broader DMV, or Northern Virginia, imposing significant time and cost burdens on small and emerging food businesses. The RAC has the potential to directly address this gap.

To inform the RAC’s potential commercial kitchen component, the following section profiles fourteen existing shared-use and incubator kitchen facilities operating across the broader DMV region. These facilities range from simple commissary kitchens serving caterers and food truck operators to full business incubators offering multi-tiered memberships, licensing support, business development programming, and connections to wholesale and retail markets. Taken together, they provide useful benchmarks for the services, pricing structures, and operational approaches that could benefit the five-county region’s producers and food entrepreneurs. A summary of services offered by each profiled facility is provided in the table below, followed by detailed profiles.

Key Findings:

- **2 commercial kitchen facilities** identified within the study area, both in Prince George’s County near the DC border
- **0 shared-use commercial kitchen facilities** in Anne Arundel, Calvert, Charles, or St. Mary’s Counties
- **14 facilities profiled** across the broader DMV region, representing a range of service and business support models
- **Services vary widely:** some facilities offer kitchen access only; others include cold/dry storage, food truck depot, licensing assistance, business incubator programming, event space, and/or 24/7 access
- **Pricing ranges** from affordable community-oriented rates to tiered commercial memberships, with some starting at \$500/month or more

Existing Community and Incubator Kitchens³⁹

Commercial kitchens are available for rent by individuals and companies in need off a licensed kitchen in which to make products. These commercial kitchens provide a licensed and equipped space for food to be made for sale according to regulations. The following are some identified commercial kitchens facilities serving producers in Anne Arundel, Prince George’s, Calvert,

³⁹ <https://pickyourown.org/commercialkitchens-Maryland.php> and <https://www.thekitchendoor.com/>

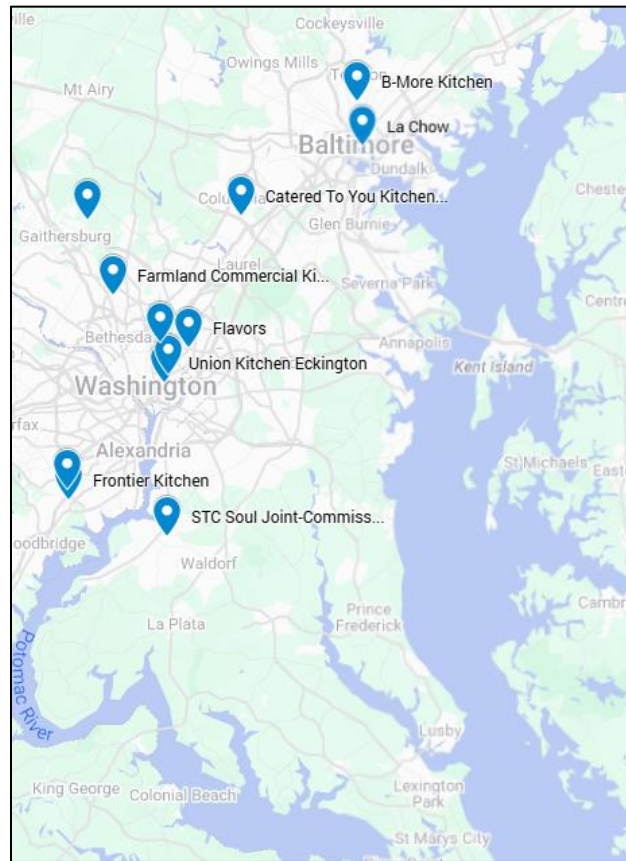
Anne Arundel RAC Feasibility Study Phase I

Charles, and St. Mary’s Counties and the surrounding region, including nearby facilities in Northern Virginia, Washington D.C., and the broader DMV area.

Facility	Location	Commercial Kitchen	Cold/Dry Storage	Food Truck Depot	Business Incubator	Licensing Assistance	Event Space	24/7 Access
STC Soul Kitchen	Accokeek, MD	✓	—	✓	✓	✓	—	—
Flavors Culinary Hub	Hyattsville, MD	✓	—	—	✓	✓	✓	✓
Frontier Kitchen	Lorton, VA	✓	✓	✓	✓	—	—	✓
Bitchin Kitchen	Springfield, VA	✓	✓	—	✓	—	—	✓
La Chow	Baltimore, MD	✓	✓	—	✓	—	✓	✓
B-More Kitchen	Baltimore, MD	✓	✓	—	✓	✓	—	—
Union Kitchen	Washington, D.C.	✓	✓	—	✓	✓	—	—
Mess Hall DC	Washington, D.C.	✓	—	—	✓	—	—	—
Park View Community Kitchen	Washington, D.C.	✓	✓	—	—	—	—	✓
TPSS Community Kitchen	Takoma Park, MD	✓	—	—	✓	—	—	—
Gaithersburg Commercial Kitchen	Gaithersburg, MD	✓	✓	—	—	—	—	—
Farmland Commercial Kitchen	Rockville, MD	✓	✓	—	—	—	—	✓
Catered To You Kitchen (CTYK)	Columbia, MD	✓	—	—	—	✓	—	—

✓ = Service offered — = Not offered or not confirmed.

Figure 14: Commercial Kitchen Facilities Map



Prince George’s County, Maryland

STC Soul Kitchen⁴⁰

STC Soul Kitchen is a trusted commissary kitchen and mentor service located at 15638 Livingston Road in Accokeek, MD (Prince George’s County). The facility specializes in supporting small business caterers, food entrepreneurs, and food truck vendors with the resources and guidance they need for licensure purposes. They offer both a commissary kitchen and mobile depot with flexible rental options designed to help food businesses meet their regulatory requirements and operational goals.

Pricing includes daily kitchen rental at \$150 per day, along with monthly membership options for entrepreneurs and food truck vendors. The facility provides scheduling flexibility with 5-hour blocks Monday through Friday, 2-hour blocks, and daily/pop-up time on weekends.

Flavors Culinary Hub⁴¹

Operating under the trademark Flavors®, this facility is a 3,000 square foot cutting-edge culinary community located in Hyattsville, MD (Prince George’s County). The Culinary Hub serves as a

⁴⁰ <https://www.thekitchendoor.com/kitchen-rental/fort-washington-commercial-kitchen-for-rent>
<https://www.stcsharedkitchen.com/>

⁴¹ <https://www.thekitchendoor.com/kitchen-rental/flavors-the-culinary-complex> <http://www.flavorsculinaryhub.com/>

crucial resource for under-resourced culinary professionals, offering a platform to start, develop, and scale their food and beverage businesses within a certified commercial kitchen facility. As the only entity of its kind in Prince George’s County, Flavors uniquely provides access to commercial kitchens, health department licensing assistance, and a spectrum of training and educational initiatives designed to support the progression and success of culinary professionals, corporate clients, and government agencies.

Flavors offers multiple membership tiers including a Virtual Kitchen Membership (10 hours per month), Commercial Kitchen Membership (20 hours per month), and a Farmers + Growers Value-Add Membership. Members receive real-time support with licensing through the State of Maryland or Prince George’s County Health Department, 24-hour kitchen access, private dining room opportunities, business development workshops and events, and marketing and promotion assistance.

Northern Virginia

Frontier Kitchen – Lorton⁴²

Frontier Kitchen operates a 7,600 square foot business incubator for culinary entrepreneurs at 8538 Terminal Road Suite M in Lorton, Virginia. The facility features a huge rotating rack oven, massive storage capacity, and plug-in parking for food trucks to keep refrigeration running while parked. The location is particularly well-suited for bakers, food trucks, caterers, and meal prep companies. Frontier Kitchen has successfully helped hundreds of food businesses graduate into their own independent spaces since opening in 2015, providing not just kitchen facilities but comprehensive business development support.

Membership plans are customized to individual business needs, starting at \$500 per month for food truck depot membership (with full-time and part-time options priced higher). All memberships require a minimum six-month commitment and include 24/7 facility access, on-site staff for business consultation, daily cleaning staff, and access to Frontier Kitchen University educational programs. Storage is available à la carte.

Bitchin Kitchen⁴³

Bitchin Kitchen is a shared commissary kitchen located at 7516 Fullerton Road Unit F in Springfield, Virginia, designed for food entrepreneurs seeking a professional and affordable space to create their culinary products. The facility is equipped with regularly maintained and sanitized appliances and tools that meet the highest standards of cleanliness. Bitchin Kitchen provides a collaborative and supportive environment where food entrepreneurs can connect, grow, and succeed as part of an inclusive community of passionate and creative individuals who share a love for food and entrepreneurial drive.

The kitchen offers both full-time and part-time membership plans with 24/7 access available. Member benefits include professional equipment, health department compliant facilities, flexible

⁴² <https://www.thekitchendoor.com/kitchen-rental/frontier-kitchen> <https://frontier-kitchen.com/>

⁴³ <https://www.thekitchendoor.com/kitchen-rental/bitchin-kitchen> <http://www.bitchinkitchen.info/>

rental options, marketing and promotion opportunities, business development workshops and events, and group buying opportunities from suppliers. Specific pricing requires direct contact.

Baltimore City, Maryland

La Chow⁴⁴

La Chow is a premier shared kitchen space located at 210 South Central Avenue in downtown Baltimore, Maryland. The facility specializes in providing a dynamic and supportive environment for newly emerging companies in the food industry, including catering businesses, ghost kitchens, and aspiring chefs looking for a professional workspace. La Chow offers more than just kitchen space – they provide a comprehensive business support system with dedicated customer service, prime location access, ample parking, and opportunities for business expansion within their facility ecosystem as companies grow.

La Chow offers three main pricing tiers: Daily Kitchen rental starting at \$300 for an 8-hour block; 3-Day Access membership starting at \$1,250 per month with access three days per week; and 7-Day Access membership starting at \$1,750 per month with 24/7 kitchen access, one designated parking space, two storage units included, and access for three team members. In addition to commercial kitchen space, La Chow offers event venues and office rental spaces for food industry professionals. C

B-More Kitchen⁴⁵

B-More Kitchen is Baltimore’s co-working kitchen space located at 5609 Hess Avenue, Baltimore, MD 21212. This 10,000 square foot facility features a 65-foot hood line, extensive equipment, dedicated prep and storage areas, and shared office space. B-More Kitchen is committed to providing Baltimore’s food entrepreneurs with the space and resources needed to grow their businesses, fostering a community of talented and determined local food makers. The facility has built a strong reputation for streamlining the permitting process, making it particularly accessible for first-time commercial kitchen users.

B-More Kitchen offers membership-based access to the facility. While specific pricing is not listed on their website, prospective members can reserve a spot and schedule tours to discuss membership options. The facility has successfully supported numerous local food businesses including bakers, caterers, meal prep companies, and food product manufacturers. B-More Kitchen is associated with a network that includes Alt Kitchen and Accelerator Space.

Washington, D.C.

Union Kitchen⁴⁶

Union Kitchen operates a 17,000 square foot production facility and business accelerator in Washington, D.C. The facility is known for its USDA-Organic Certification and FDA registration, positioning it as a premier resource for food founders looking to launch and scale

⁴⁴ <https://www.thekitchendoor.com/kitchen-rental/la-chow> <http://www.thelachow.com/>

⁴⁵ <https://www.thekitchendoor.com/kitchen-rental/b-more-kitchen-1576>
<http://www.bmorekitchen.com/>

⁴⁶ unionkitchen.com

their businesses. Union Kitchen provides shared kitchen production space specifically designed for DC, Maryland, and Virginia food startups, with particular emphasis on helping farmers market businesses grow into larger operations. The facility's ecosystem and expertise are designed to empower businesses to thrive in the competitive food industry from initial launch through scaling phases.

Union Kitchen offers shared commercial kitchen space with certification to support business growth from farmers market operations to larger wholesale and retail distribution. The facility provides essential equipment and operational support for food production. Specific pricing information requires direct contact with the facility.

Mess Hall DC

Mess Hall operates as a food incubator in Washington, D.C., providing a vibrant environment for over 40 member businesses. The facility serves as a comprehensive business support system, connecting food entrepreneurs with an extensive network of restaurants, farmers markets, and potential corporate clients throughout the Washington metropolitan area. This networking ecosystem is designed to help launch and grow small food businesses by providing not just physical kitchen space, but the critical social capital and business connections needed for long-term success in the competitive food industry.

Mess Hall's business model emphasizes community building and collaborative opportunities among its diverse membership of food entrepreneurs. The facility provides access to commercial kitchen equipment along with mentorship and networking opportunities that help members expand their market reach. Specific pricing and membership details require direct contact with the facility.

Park View Community Kitchen

Park View Community Kitchen is located at 3001 Georgia Avenue NW in Washington, D.C., serving as an affordable and convenient ghost kitchen that prioritizes aspiring food entrepreneurs who need a space to create their culinary products. The commercially licensed kitchen is equipped, clean, and ready for use for all types of food businesses. The facility offers 24/7 service hours, making it particularly accessible for entrepreneurs who need to work outside traditional business hours while maintaining other employment or managing family responsibilities.

Park View Community Kitchen offers flexible and affordable pricing to help new businesses get started. The facility provides comprehensive equipment including dry and cold storage, freezer, cold table prep refrigerator, convection stove, pizza countertop conveyor oven, commercial oven and stove, vertical broiler (gyro), deep fryer, and griddle. The kitchen serves chefs, caterers, food trucks, and other food producers throughout the DC Metro area.

Montgomery County, Maryland

Takoma Park Silver Spring Community Kitchen (Crossroads Community Food Network)

The Takoma Park Silver Spring Community Kitchen, operated by Crossroads Community Food Network, opened in August 2017 to provide much-needed affordable food prep space for small-

scale food entrepreneurs in the region. The facility serves as a launching pad for diverse food businesses, with member entrepreneurs including those producing traditional Guatemalan antojitos, Caribbean-inspired jams and jellies, artisan baked goods, Japanese bento boxes and sushi, farm-grown mushrooms and vegetables, and health-focused beverages and teas. The kitchen's mission centers on improving community food security by making affordable, locally-produced food more accessible while supporting the economic development of emerging food businesses.

TPSS Community Kitchen stands out by offering a Microenterprise Training Program that links budding food businesses with valuable community resources, mentorship opportunities, and skill development support. The facility provides an affordable, licensed space that is particularly accessible for aspiring food entrepreneurs who might otherwise face barriers to entry in the commercial food production industry. The kitchen connects members with farmers markets, retail outlets, and other sales channels throughout the DC, Maryland, and Northern Virginia region.

Gaithersburg Commercial Kitchen Rentals (Ghost Kitchen Rental)⁴⁷

Gaithersburg Commercial Kitchen Rentals operates three professional commercial kitchens conveniently located in the heart of Gaithersburg, Maryland, serving the Greater Maryland, Virginia, and Washington, DC areas. The facilities are health department licensed and designed for safe food handling and food service manufacturing, making them suitable for entrepreneurs looking to start or expand food-related businesses without the substantial expense involved in building and equipping their own commercial kitchen. Each kitchen is equipped with commercial stoves, convection ovens, commercial mixers, ice machines, dough sheeters, tilt kettles, refrigerators, freezers, storage shelves, and large stainless-steel worktables.

Ghost Kitchen Rental accommodates food truck operators, farmers market vendors, caterers, and other food merchants with both short-term and long-term usage options, including private use during designated hours. While there are no long-term obligations required, a one-year user agreement is their most popular option. The facility serves clients throughout Washington D.C., Montgomery County, Frederick County, Prince George's County, Baltimore County, and surrounding areas including Bethesda, Germantown, Montgomery Village, Rockville, Silver Spring, and Mount Airy. Prospective users must hold a Food Protection Manager Certificate and complete an online application before scheduling a tour.

Farmland Commercial Kitchen⁴⁸

Farmland Commercial Kitchen is a family-owned facility located in Rockville, Maryland, that operates 24/7 to provide flexible access for food entrepreneurs at all stages of business development. The facility provides essential equipment including walk-in coolers, walk-in freezers, and convection ovens, making it a supportive space for both new businesses testing their concepts and growing companies scaling their operations. As a family-run business, Farmland Commercial Kitchen emphasizes a personal approach to supporting its members while maintaining professional-grade facilities and equipment.

⁴⁷ ghostkitchenrental.com

⁴⁸ farmlandcommercialkitchen.com

The facility's 24/7 operational hours provide maximum flexibility for entrepreneurs who need to work around other commitments or serve customers with early morning or late-night delivery needs. Farmland Commercial Kitchen offers spaces for rent at budget-friendly rates and includes a loading dock for convenient deliveries and package handling. The facility's mission focuses on nurturing community growth through accessible kitchen spaces that help food businesses thrive.

Howard County, Maryland

Catered To You Kitchen (CTYK)⁴⁹

Catered To You Kitchen (CTYK) is located in Columbia, Maryland, providing commercial kitchen rental services ideal for food entrepreneurs in Washington, DC, Baltimore, and throughout Maryland. The facility offers state-of-the-art facilities designed to help culinary businesses grow without the overhead costs of owning their own commercial kitchen. CTYK positions itself as a comprehensive resource for food businesses, offering not just physical kitchen space but also regulatory compliance support that is critical for successful food business operations in Maryland.

A distinctive feature of CTYK is their specialization in professional HACCP (Hazard Analysis and Critical Control Point) plan preparation services for food businesses across Maryland. With deep understanding of state and local health department requirements, CTYK's team supports food entrepreneurs, caterers, processors, and shared kitchen operators in developing customized, compliant HACCP plans. They guide clients through each step of the regulatory process—from hazard analysis to plan submission—whether launching a new food product, opening a commissary kitchen, or seeking approval from Maryland's health authorities. This regulatory expertise makes CTYK particularly valuable for businesses navigating Maryland's food safety requirements.

⁴⁹ ctykitchen.com

PRELIMINARY NEEDS ASSESSMENT

Throughput Capacity Requirements

Determining appropriate throughput capacity for the Anne Arundel RAC requires balancing the documented livestock supply within the immediate service area against the realistic regional draw that a USDA-inspected facility would attract across the five-county Southern Maryland region. This distinction is central to any honest planning exercise: Anne Arundel County itself supports a modest livestock base by any measure. According to the 2022 Census of Agriculture, the county is home to 862 head of cattle and calves — including 467 beef cows — along with just 72 hogs and pigs and 482 sheep and lambs. ^[1] These figures reflect ongoing development pressure and farmland conversion in a rapidly urbanizing county, and represent a 21% decline in cattle inventory from the 1,150 head reported in the 2017 Census. ^[1]

The RAC, however, is not conceived as a county facility. It is conceived as a regional one, explicitly designed to serve a five-county Southern Maryland project area that includes Calvert, Charles, Prince George's, and St. Mary's counties in addition to Anne Arundel. The five-county aggregate presents a materially different supply picture. St. Mary's County alone — the dominant livestock production county in the region — holds 3,276 head of cattle and calves and 2,537 hogs and pigs, representing the anchor producer base for any regional processing facility. ^[1] Charles County contributes 1,234 cattle and calves and 333 hogs; Prince George's County adds 1,387 cattle and 254 hogs; and Calvert County rounds out the regional supply with 813 cattle and 138 hogs. ^[1] Across the five counties, sheep and lamb inventory is distributed broadly, with Anne Arundel holding the largest individual county total at 482 head, followed by St. Mary's at 434, Charles at 408, and Prince George's at 332. ^[1] Maryland's statewide meat goat population of 9,329 head provides additional context for small ruminant demand in the regional marketplace. ^[1]

Key Finding: *100% of livestock producer survey respondents indicated they would be willing to travel up to two hours to access a local USDA-inspected facility, and multiple producers indicated they would expand herd sizes if reliable, local processing became available.*

The Phase I outreach findings reinforce the regional demand picture in concrete terms. Every single livestock producer surveyed indicated they would be willing to travel up to two hours to access a local USDA-inspected facility. ^[2] Multiple producers indicated they would expand herd sizes if reliable, local processing became available, with survey responses referencing increases of 10–29%, doubling of herd sizes, and the addition of entirely new livestock enterprises such as beef cattle. ^[2] This suppressed production capacity — producers holding back on investment because processing access is effectively absent — represents a measurable latent supply that a functioning RAC would begin to unlock over time. USDA Economic Research Service research (ERR-150) on local meat processing viability identifies the conversion of latent producer intent

into committed processing volume as among the most consequential factors determining whether a new regional facility reaches financial sustainability.^[9]

Scenario Structure

Two throughput scenarios are presented for preliminary planning purposes. Both assume a standard five-day operating week and a single-shift schedule in early years with capacity to add staggered shifts as volume grows, consistent with operational models used in comparable small USDA-inspected facilities.^[3] Both also assume USDA continuous inspection coverage within the standard eight-hour daily window. Under the Federal Meat Inspection Act, federal inspection personnel must be present at all times during livestock slaughter operations and for at least part of each shift during which there is further processing of meat products.^[7] Both scenarios model the facility as a multi-species operation processing beef cattle, hogs, sheep, and goats — the four species identified as priority needs by producer survey respondents, all of whom selected USDA-inspected slaughter as a required service.^[2]

Scenario 1 — Survey Baseline

The Survey Baseline scenario reflects a conservative Year 1 throughput position anchored to identifiable producer commitments from the regional service area. It is modeled analogously to committed producer volumes documented in Private Regional Study 1, a comparable multi-species red meat processing feasibility study completed by this firm, where a producer survey identified commitments totaling 3,130 animals — 1,422 cattle, 1,068 hogs, 573 sheep, and 67 goats — representing approximately 56% of that facility's baseline Year 1 projection.^[3] For Anne Arundel, the baseline is set somewhat more conservatively in absolute terms, reflecting the more modest in-county livestock inventory, but the regional draw from St. Mary's and the surrounding counties provides a credible foundation for minimum viable throughput.

The species mix in this scenario is deliberately weighted more toward small ruminants than Private Regional Study 1, reflecting the Southern Maryland production profile. Anne Arundel holds the largest sheep and lamb inventory of all five project counties at 482 head,^[1] and small ruminant producers across the region face the same processing gap as cattle and hog producers — in some cases a more severe one, given the near-total absence of small ruminant slaughter capacity within a practical service radius documented in the Phase I competitive facility analysis.^[2]

Scenario 2 — Regional Draw

The Regional Draw scenario reflects a fully operational facility that has established its reputation, developed formal processing relationships with producers across the five-county service area, and is capturing a meaningful share of latent demand including producers who indicated intent to expand if processing access improved.^[2] This scenario is not an opening-year expectation — it is a Year 3 operational target. It is important to

note that many physical infrastructure decisions, including cooler footprint, kill floor size, and rail systems, are effectively permanent once constructed and cannot be easily scaled upward after operations begin.^[4] Planning physical infrastructure toward the Regional Draw scenario while ramping staffing and scheduling gradually to the Survey Baseline is the prudent approach established by comparable facility precedents.

Preliminary Annual Throughput Projections

Species	Survey Baseline (Year 1)	Regional Draw (Year 3 Target)
Beef Cattle	800 head	2,200 head
Hogs	600 head	1,500 head
Sheep	400 head	900 head
Goats	300 head	700 head
Total Head	2,100	5,300

At Survey Baseline volumes, the facility would operate at roughly 40–45% of its design capacity — a deliberate and realistic opening position consistent with new facility ramp-up patterns observed across comparable regional processing projects. Private Regional Study 1 found that survey-committed volumes represented 56% of baseline projections yet still produced positive EBITDA over three years.^[3] Sensitivity analysis from that study further demonstrates that this relationship is asymmetric: a 20% volume increase more than doubles baseline profitability, while a 20% volume decline drives the operation to a loss — reinforcing why planning physical infrastructure toward the higher-capacity Regional Draw scenario, while ramping staffing and scheduling conservatively, is the most defensible approach.^[3]

Key Finding: *Sheep and goats together account for roughly a third of total annual volume in both scenarios — a higher small ruminant share than typical for comparable facilities, reflecting Southern Maryland’s production profile and strong ethnic market demand in the D.C. metropolitan corridor.*

Small ruminants deserve particular note. Sheep and goats together account for 700 of the 2,100 Survey Baseline head and 1,600 of the 5,300 Regional Draw head. This is a higher small ruminant share than is typical for comparable facilities in other parts of the mid-Atlantic region and reflects both the production profile of Southern Maryland agriculture and the strong ethnic market demand in the greater Washington, D.C. metropolitan corridor immediately to the north. The 2022 Census of Agriculture documents Maryland’s statewide sheep and lamb population at 18,912 head and its meat goat population at 9,329 head,^[1] confirming a substantial regional producer base for these species. Notably, Private Regional Study 1 found that producer survey

commitments for sheep (573 head) substantially exceeded that study's modeled baseline assumption (100 head), offering a direct precedent for taking regional small ruminant demand projections seriously rather than discounting them as optimistic. Proximity to the D.C. market — where demand for halal and specialty small ruminant products is well established and growing — represents a distinct competitive advantage for the Anne Arundel RAC.

These throughput targets will be refined in Phase II through formal producer commitment outreach, detailed slaughter day scheduling models by species, and site-specific cooler capacity and kill floor throughput analysis. The significant suppressed demand documented throughout Phase I — including producers currently driving two or more hours for processing, others forgoing USDA inspection entirely at the cost of wholesale and institutional market access, and multiple stakeholders indicating readiness to expand production immediately upon facility availability — provides a strong evidentiary foundation for the Regional Draw scenario.^[2]

Section 2: Prototypical Facility Layout Design and Recommendations

It is important to establish the appropriate frame for this section from the outset. The Anne Arundel RAC is a concept in early feasibility. No site has been finalized, no architectural work has been commissioned, and no construction timeline has been established. The zoning text amendments required to permit slaughter activities at the proposed site have not yet been adopted, and significant infrastructure questions — including the absence of municipal water and sewer — remain unresolved.^[2] What follows is therefore a prototypical description of what a USDA-inspected multi-species processing facility serving the RAC's documented throughput scenarios would require in terms of functional zones, spatial organization, and design standards. This prototypical description is grounded in established industry guidance and our experience with comparable facility projects.

A USDA-inspected multi-species slaughter and processing facility serving the throughput scenarios described above would require a purpose-built or substantially renovated facility in the range of 10,000 to 14,000 square feet of enclosed processing and support space, plus covered outdoor lairage. This range is grounded in established design standards for small-scale USDA meat plants. Iowa State University Extension's *Guide to Designing a Small Red Meat Plant with Two Sizes of Model Designs* — the most widely referenced design standard for locker-type USDA red meat facilities in the United States — presents two model designs for small multi-species, slaughter-through-fabrication operations, both of which provide the spatial benchmarks from which the RAC's larger regional throughput requirement can be proportionally scaled.^[5] Most custom or USDA-inspected meat processing plants are relatively small and range in size from approximately 3,000 to 6,000 square feet, though a few plants are much larger, and larger plants require greater business activity for financial viability.^[4] An 11,400 square foot example facility layout reviewed in Private Regional Study 1 for a comparable multi-species processing operation serves as one anchor for the lower bound of the range recommended here. The RAC's

regional draw scenario, at approximately 5,300 annual head across four species, would significantly exceed that smaller range and necessitate a facility at the upper end or beyond it.

For reference on how comparable regional facilities are sized, a nearly 14,000-square-foot Indiana facility referenced in industry reporting was able to harvest between 60 and 80 cattle and approximately 50 hogs per week in addition to some sheep and goat processing — a throughput range consistent with the RAC’s Regional Draw scenario.^[6] That same operator has noted that adding 10,000 square feet to double capacity would cost more than \$3 million, underscoring why getting the initial footprint right matters enormously.^[6]

Planning Scale: Two Facility Models for Phase II Evaluation

The throughput analysis in Section 1 presents two scenarios. The Survey Baseline — 2,100 head annually, anchored in actual producer survey commitments — is the only figure grounded in documented, project-specific data. The Regional Draw projection of 5,300 head is a well-reasoned estimate, but it is a projection: it incorporates latent demand and production expansion that has not yet been committed and that Phase II will need to validate through formal producer outreach. These two scenarios naturally map to two different facility scale options, both of which are realistic and worth preserving for Phase II evaluation. Neither is a foregone conclusion. The right answer depends on site constraints, capital availability, governance structure, and the depth of producer commitment that Phase II outreach confirms or revises.

The Iowa State University Extension guide presents two model designs for small locker-type USDA red meat plants — a smaller design and a larger design — both well under 10,000 square feet and both intended to illustrate how different throughput levels translate into different spatial requirements.^[5] Most custom or USDA-inspected meat processing plants nationwide range from approximately 3,000 to 6,000 square feet.^[4] The two models described below — a Compact Facility and a Full Regional Facility — bracket the realistic planning range for the Anne Arundel RAC. The functional zone detail and footprint table that follow in this section describe the Full Regional Facility at the upper end of that range. Phase II will determine which model, or what variation between them, is the appropriate target.

Characteristic	Compact Facility (~4,500–6,500 sq. ft.)	Full Regional Facility (10,000–14,000 sq. ft.)
Target Throughput	Survey Baseline: ~2,100 head/year	Regional Draw: ~5,300 head/year
Kill Floor Capacity	~8–15 mixed head/kill day	~20–35 mixed head/kill day
Cooler Configuration	Combined beef/small animal; limited separate aging	Separate beef cooler/aging room and small animal cooler
Value-Added Space	Minimal or shared with fabrication	Dedicated smoking/value-added room

Est. Construction Cost	~\$750K–\$1.5M (renovation) to ~\$2M (greenfield)	~\$2M–\$3M (renovation) to ~\$4M+ (greenfield)
Growth Ceiling	Expansion beyond ~2,500–3,000 head/year requires major renovation	Designed to accommodate Regional Draw without additional construction

Option A: Compact Facility (~4,500–6,500 sq. ft.)

A compact USDA-inspected multi-species facility in the 4,500–6,500 square foot range is a well-established and documented facility type. The KCARD/University of Kentucky overview notes that most custom or USDA-inspected meat processing plants range from approximately 3,000 to 6,000 square feet, and the Iowa State University design guide presents model layouts in this same range as the standard benchmark for small-scale locker-type operations. ^{[4][5]} Real-world examples document facilities at this scale operating as functioning USDA-inspected slaughter and processing operations: a 4,500 square foot facility in South Dakota, for example, operates with seven employees processing beef and pork under USDA inspection. ^[32]

For the Anne Arundel RAC, a compact facility at this scale is credibly aligned with the Survey Baseline throughput of 2,100 head annually — the only throughput figure derived from actual, documented producer survey commitments. At Survey Baseline volumes, the facility would process approximately 8–15 mixed species head on each of three kill days per week. The principal design tradeoffs of a compact facility relative to the Full Regional option are: (a) a combined beef and small animal cooler rather than two separate cold rooms, which constrains the ability to simultaneously age beef over multiple days while holding hog and small ruminant carcasses; (b) a smaller kill floor with less throughput headroom; and (c) limited or no dedicated value-added space separate from fabrication, which may affect the facility’s ability to offer the smoking, curing, and sausage services that 56% of survey respondents identified as a required service. ^[2] The upside is meaningfully lower capital cost — potentially \$1–2 million less in construction and infrastructure investment — and lower debt service in the early years when throughput is ramping up. ^[17]

Option B: Full Regional Facility (10,000–14,000 sq. ft.)

The Full Regional Facility described throughout the remainder of this section is sized to accommodate the Regional Draw scenario — approximately 5,300 head annually, representing a fully operational facility that has captured meaningful latent demand across the five-county service area. This is the model supported by the Indiana facility reference and by the 11,400 square foot benchmark from Private Regional Study 1. ^{[3][6]} Its principal advantages are: full separation of cooler and aging infrastructure by species, a dedicated value-added room capable of supporting the smoking and curing services that producers have specifically requested, sufficient kill floor capacity to grow into the Regional Draw without renovation, and the ability

to add slaughter shifts as volume grows. Its tradeoff is the higher upfront capital requirement, which places greater reliance on grant funding and makes the ramp-up years more financially sensitive to throughput shortfalls.

Both options are compliant with USDA FSIS requirements for federally inspected multi-species slaughter establishments.^[7] Phase II will evaluate both in the context of the confirmed site, the capital stack assembled through the grant application process, and the formal producer commitment volumes developed through outreach. The functional zone detail, footprint table, and site context discussion that follow describe the Full Regional Facility. Where a compact facility would differ materially from that description — principally in cooler configuration, value-added space, and kill floor sizing — those differences are noted in the relevant subsections.

Core Design Principles

Key Finding: *The three organizing design principles — applicable regardless of facility scale — are: (1) linear, unidirectional flow from dirty to clean; (2) multi-species scheduling by designated kill days; and (3) sizing cold storage to the upper bound of planned throughput from the outset.*

The most fundamental principle is linear, unidirectional flow from dirty to clean. Live animals enter at one end of the facility, proceed through the kill floor, into chilling and aging coolers, through fabrication and cut operations, and out through packaging and finished product storage at the opposite end. Slaughter, scalding, and picking operations should be separate from eviscerating, chilling, and packaging operations, and in most cases, separate rooms must be provided.^[18] This separation is not merely a best practice — it is a HACCP and FSIS compliance requirement that will be evaluated during the grant of inspection process.

The second principle is multi-species scheduling. In a small facility, full physical separation of beef and hog slaughter infrastructure is generally not financially feasible. Standard practice is to designate separate kill days by species — beef on designated days, hogs and small ruminants on others — and to conduct thorough cleaning and sanitation between species runs.^[3] Small ruminants, including both sheep and goats, can typically share kill floor days with hogs given the compatibility of processing procedures, which simplifies weekly scheduling and inspector coverage.^[3]

The third principle concerns cold storage sizing. Regardless of which facility scale is ultimately selected, cooler and freezer areas are fixed after construction, meaning the space to house product cannot be adjusted with volume fluctuations. In contrast, adjusting labor on the kill floor and in processing rooms can accommodate changing numbers of animals for processing. Accurately estimating animal volume and frequency to calculate temperature-controlled storage is a critical factor to success. A compact facility should therefore be sized to the upper bound of its planned throughput range — not the minimum — to avoid becoming capacity-constrained before throughput has stabilized. A full regional facility should be sized for the Regional Draw

scenario. In either case, the cooler is the one element of the physical plant where undersizing carries the highest cost to correct after the fact. ^[4]

Functional Zones

A compliant, operationally sound facility for the Anne Arundel RAC would include the following functional zones. Square footage estimates are based on industry design standards from Iowa State University Extension, the KCARD/University of Kentucky overview, and our experience with comparable processing facility projects.

- ***Lairage and Holding Pens (2,000–3,000 sq. ft., covered)***
All animals arriving at the facility must be held in covered, ventilated holding pens before slaughter. FSIS and Humane Methods of Livestock Slaughter Act (7 U.S.C. §§ 1901–1907) requirements mandate segregation by producer to maintain identity preservation throughout the process, and a separate isolation pen is required for any suspect or injured animals. ^[7] Pens, ramps, and holding areas must be paved and suitably drained, and if enclosed, adequate ventilation must be provided. ^[18]
- ***Kill Floor / Harvest Room (1,800–2,400 sq. ft.)***
The kill floor houses stunning, sticking, bleeding, hoisting, skinning or scalding, evisceration, carcass inspection, and splitting operations for each species. For a multi-species facility processing both beef and hogs, the kill floor must accommodate the overhead rail system used in beef dressing as well as the scald tank and scraping equipment required for hog processing. The USDA/NCDA&CS Facility Guidelines specify minimum rail heights for different species — bleeding rails for sheep and goats at 9 to 11 feet and dressing rails at 8 feet 6 inches — all of which must be incorporated into the room’s structural design. ^[8] The kill floor must also include a viscera inspection station directly accessible to the FSIS inspector, and a detained carcass rail allowing suspect product to be routed away from the main line without cross-contamination. Federal inspection personnel must be present at all times during livestock slaughter operations. ^[7]
- ***Pre-Chill / Hot Box (400–600 sq. ft.)***
Freshly slaughtered carcasses must be cooled rapidly before entering the aging cooler. A dedicated pre-chill space allows this initial temperature reduction to occur separately from hanging aged inventory, which is critical for product quality and for reducing refrigeration energy costs. Pre-chill coolers should be separate from aging space to allow freshly-killed hot carcasses to cool prior to being mixed with aging product. ^[4]
- ***Beef Carcass Cooler and Aging Room (1,500–2,000 sq. ft.)***
This is frequently the single most critical space in a slaughter facility and the most common source of capacity constraints in small plants. Average cooler storage requirements are 15 square feet per whole beef and 9 square feet per hog. ^[4] Standard beef aging runs 3 to 5 days for carcasses with minimal fat cover and 7 to 10 days for

standard carcasses.^[4] Fifty-six percent of producer survey respondents identified aging capability as a required service,^[2] meaning the cooler must hold multiple days of simultaneous inventory at peak Regional Draw throughput. At approximately 42–44 beef head per week under the Regional Draw scenario, a beef cooler of at minimum 1,500 square feet is warranted.

- ***Small Animal Cooler — Hog, Sheep, and Goat (600–900 sq. ft.)***
Hogs require approximately 9 square feet per carcass; small ruminants require somewhat less.^[4] At Regional Draw volumes of 1,500 hogs and 1,600 sheep and goat combined annually, this cooler must be sized with the same forward-looking discipline as the beef cooler.
- ***Fabrication and Cut Room (1,500–2,000 sq. ft.)***
This room houses carcass breakdown and retail cut operations and must be maintained at or below 50°F throughout the workday. The cutting room should be kept at a temperature of less than 50°F, or the establishment must have a mid-shift cleanup.^[18] For a multi-species facility, separate cutting stations for beef and small animals are recommended. The fabrication room must include stainless-steel work surfaces, overhead rail connections from the cooler, band saws, scale systems, and adequate floor drain capacity.
- ***Value-Added and Smoking Room (400–600 sq. ft.)***
Fifty-six percent of livestock producer survey respondents identified value-added meat processing — including smoking, curing, and sausage production — as a required service.^[2] This encompasses the smoking, curing, and sausage services that survey respondents identified as a priority, consistent with standard USDA descriptions of value-added meat processing activities. A segregated room with appropriate ventilation, humidity control, and smoking equipment supports these services and requires a separate HACCP plan from raw product operations under FSIS regulations.^[7]
- ***Packaging and Order Staging (500–700 sq. ft.)***
This space houses vacuum packaging equipment, labeling operations, and order assembly for producer pickup. As a toll processing operation — where producers retain ownership of their animals and meat products throughout the process^[3] — accurate order segregation and labeling is both operationally and legally essential.
- ***Freezer Storage (600–800 sq. ft.)***
Finished packaged product awaiting producer pickup must be held in a freezer. Sizing should accommodate five to seven days of production at Regional Draw throughput without requiring same-day pickup, an important operational flexibility for farm-based producer clients.
- ***Offal / Gut Room (200–300 sq. ft.)***
A confined storage area for waste products is a USDA requirement.^[4] This space must have exterior access for waste removal without crossing clean processing zones.
- ***USDA Inspector Office and Restroom (min. 60 sq. ft.)***

Based on direct consultation with FSIS officials documented in Private Regional Study 1, the minimum requirement is a 6-by-10-foot office with an attached restroom designated exclusively for the inspector. ^[3] Inspection during a standard eight-hour workday carries no direct charge to the facility; any processing extending beyond that window is billed at \$80–\$100 per hour. ^[3]

- **Employee Areas (400–600 sq. ft.)**

Per local health department standards, employees must have designated areas for hygiene maintenance, changing, and breaks that are fully separated from food contact areas. ^[4]

These spaces are among the most consistently scrutinized during health department inspections and have direct implications for workforce recruitment and retention.

- **Administrative Office (300–400 sq. ft.)**

Administrative and management functions should be physically separated from the processing environment. A second-floor addition or a dedicated office module adjacent to the main processing building are both practical options.

Estimated Facility Footprint

Functional Zone	Estimated Sq. Ft.
Lairage / Holding Pens (covered)	2,000–3,000
Kill Floor / Harvest Room	1,800–2,400
Pre-Chill / Hot Box	400–600
Beef Carcass Cooler & Aging Room	1,500–2,000
Small Animal Cooler	600–900
Fabrication / Cut Room	1,500–2,000
Value-Added / Smoking Room	400–600
Packaging & Order Staging	500–700
Freezer Storage	600–800
Offal / Gut Room	200–300
USDA Inspector Office & Restroom	100–150
Employee Areas	400–600
Administrative Office	300–400
Total Enclosed Processing & Support	~9,300–13,450 sf

Site-Specific Context

The proposed Anne Arundel RAC site presents several constraints that will materially affect final facility design decisions. The site requires demolition of an existing structure, infrastructure

improvements, and currently lacks municipal water and sewer connections. ^[2] Water demand for slaughter operations is substantial — industry data documents consumption of approximately 150–200 gallons per beef processed — making wastewater management a significant infrastructure consideration. ^{[3][12]}

On construction cost, a small plant can process around 20 head of cattle per week at a cost of approximately \$400 per square foot for a 3,000-square-foot greenfield facility, while repurposing an existing commercial building is estimated at \$150 per square foot, though it could be up to \$450 per square foot in higher-cost areas. ^[17] Kansas State University economist Glynn Tonsor has noted that a general rule of thumb for new beef processing facility construction is approximately \$100,000 per head of daily processing capacity ^[6] — a benchmark that reinforces the capital intensity of this type of project at any scale. These figures are provided as planning-level context only and will be substantially refined as site conditions and project parameters are confirmed in future phases.

Section 3: Estimated Equipment Lists and Operational Requirements

The equipment required to operate a USDA-inspected multi-species slaughter and processing facility falls into several broad functional categories: kill floor and slaughter equipment, carcass handling and rail systems, cold storage and refrigeration, fabrication and cut room equipment, value-added processing equipment, packaging, and daily operational and sanitation supplies. What follows is a prototypical equipment list based on the FAO's *Standard Plans for a Small Abattoir and Meat Market*, adapted and expanded through our experience with comparable regional facility projects including Private Regional Study 1. The core equipment framework is also consistent with the prototypical equipment list developed in Private Regional Study 2, a multi-species cooperative processing feasibility study completed by this firm in 2023, adapted here for the Anne Arundel species mix and throughput scale. ^{[3][16]}

It is important to note that specific equipment selections, quantities, and configurations will depend on final facility design, species scheduling decisions, and the capital structure that emerges from Phase II planning. Many projects of this type rely on a mixture of new and used equipment purchases, and used equipment is frequently available in good condition at substantially reduced cost. ^[3]

Kill Floor and Slaughter Equipment

The kill floor is the most capital-intensive single zone in the facility and houses the greatest concentration of species-specific equipment. Core requirements for a multi-species operation processing beef, hogs, sheep, and goats include: captive bolt percussion stunner and stun box (cattle-scale, with small stock configuration or a separate small animal stun box); electrical stunner (for hogs and small ruminants where applicable); bleeding hoist and bracket with separate configurations for cattle and small stock; overhead chain-style conveyor and rail system

for carcass movement through the slaughter line; floor rings, bleeding shackles, and chains; hide skinner or mechanical hide puller (cattle); scald tank and scraper/dehairing machine (hogs); lifting frame and dressing cradle; head workup rail and head table; viscera inspection table and viscera buggy; breaking saw (beef splitting); working platform for overhead rail operations; gambrels in various sizes by species; small stock skids and hooks; spreader and hand hoist; electric hoist; offal collection carts, buckets, and shovels; hide horse and hide drying frames; and floor drains with appropriate screening and trapping for blood, offal, and effluent.

The stunning process — most commonly achieved through captive bolt percussion or electrical stunning — is both a regulatory requirement under the Humane Methods of Livestock Slaughter Act (7 U.S.C. §§ 1901–1907) and a determinant of meat quality, as improper stunning can cause blood splashing and quality degradation in the carcass.^[7] The scald tank required for hog processing is a significant piece of infrastructure — not just a piece of equipment — as it requires hot water supply, drainage, and spatial separation from the beef line, reinforcing the importance of species-specific scheduling on alternating kill days.^[3]

Carcass Handling and Rail Systems

The overhead rail system is the physical backbone of the processing operation, connecting the kill floor to pre-chill, aging cooler, and fabrication zones in a continuous cold chain. Rail system height and structural load capacity must be specified to accommodate the largest species processed — in this case, beef carcasses of 800–950 pounds dressed weight — while also allowing for efficient small ruminant handling.^[5] Components include: main slaughter line overhead rail and track switches; pre-chill and cooler rail systems; fabrication room overhead rail connection from coolers; detained carcass rail (FSIS requirement for routing suspect product); trolleys and hooks in quantities sufficient for peak daily inventory; and scales integrated into the rail system for carcass weight capture.

Cold Storage and Refrigeration

As described in the facility layout section, cold storage is the most inflexible element of the facility from a capacity standpoint. Refrigeration equipment requirements include: pre-chill / hot box refrigeration unit and controls; beef carcass cooler refrigeration system, sized for 15 square feet per whole beef at peak aging inventory;^[4] small animal cooler refrigeration system, sized for approximately 9 square feet per hog equivalent;^[4] blast freezer or walk-in freezer for finished product storage; temperature and humidity monitoring equipment for all cold rooms (required for HACCP compliance and food safety documentation);^[3] and backup monitoring and alarm systems.

Fabrication and Cut Room Equipment

Key equipment includes: band saws (beef and pork scale, floor-mounted); stainless-steel cutting tables and boning tables; knives, steels, and sharpeners in quantities for full crew; meat grinder; sausage stuffer and casing equipment; tenderizer (optional); portion scales; sanitary cutting

boards (removable, FSIS-compliant materials);^[7] wash-down hoses and hand-washing stations (non-hand-operated faucets required);^[7] knife sterilizers; and chain mail gloves, cut-resistant aprons, and PPE for all cutting personnel.

Value-Added Processing Equipment

Fifty-six percent of producer survey respondents identified value-added meat processing as a required service.^[2] Equipment includes: commercial smokehouse (capacity sized to daily production targets; commercial smokers of appropriate capacity for a facility at this scale typically range from \$20,000 to \$100,000);^[11] curing and brining equipment; mixer and seasoning equipment for sausage and ground products; and cooking equipment if ready-to-eat products are offered (requires separate HACCP plan and physical segregation under FSIS regulations).^[7]

Packaging Equipment

Core packaging requirements include: vacuum packaging machine (chamber-style, appropriately sized for daily production volume; automated packaging systems at this scale can exceed \$150,000 for high-throughput configurations, though smaller chamber vacuum sealers adequate for early-stage operations are available at significantly lower cost);^[11] packaging materials including vacuum bags, butcher paper, labels, boxes, and containers; label printer and label management system (required for FSIS-compliant product identification and traceability); and strapping machine for boxed product.

Water, Waste, and Utility Infrastructure

Water consumption in slaughter operations is substantial and represents a critical infrastructure planning consideration, particularly given the proposed site's lack of municipal water and sewer connections.^[2] Industry data on water use in slaughter operations documents consumption ranging from approximately 100 to 300 gallons per large animal processed, depending on species and facility practices. For planning purposes, Private Regional Study 1 used a working assumption of 150 to 200 gallons per beef animal — consistent with the middle of this range — and that figure is adopted here as the primary planning benchmark for the Anne Arundel site.^{[3][12]} At Regional Draw volumes, this implies daily water demand potentially reaching 8,000–10,000 gallons on peak slaughter days, requiring either a high-capacity well system or alternative supply arrangements. Required infrastructure includes: water storage tanks and pressure systems; water pump; boiler and hot water system; effluent screening and treatment systems; and compliant floor drainage in all wet processing areas.^[7]

Daily Operational and Sanitation Supplies

Daily operations require a continuous supply of sanitation materials and personal protective equipment including mops, brooms, cleaning products, floor squeegees, hoses and fittings, personal protective equipment including suits, gloves, face shields, boots, bonnets, and bouffant

caps for all processing personnel, as well as emergency equipment. ^[3] A dedicated sanitation crew and sanitation protocol operating between species kill days and at the end of each processing day is a non-negotiable operational requirement under FSIS regulations. ^[7] State-level requirements for facility sanitation, waste disposal, and operating permits vary by jurisdiction and layer additional compliance obligations on top of federal FSIS standards; the National Agricultural Law Center maintains a state-by-state compilation of meat processing regulations relevant to this planning process. ^[19]

Key Finding: *Private Regional Study 1 used an equipment cost assumption of approximately \$545,000 over the three-year projection period at baseline throughput volumes — equipment costs alone can range from \$200,000 to over \$1 million for a small to mid-sized USDA-inspected plant.*

Equipment costs alone can constitute a significant portion of the startup budget, ranging from \$200,000 to over \$1 million for a small to mid-sized USDA-inspected plant. ^[11] Private Regional Study 1 used an equipment cost assumption of approximately \$545,000 over the three-year projection period at baseline throughput volumes, ^[3] providing a useful order-of-magnitude benchmark for Phase II financial modeling. Final equipment specifications, quantities, and procurement strategy — including evaluation of new versus used purchases and the potential to acquire equipment from facility closures — will be developed during Phase II.

Section 4: Staffing Needs and Labor Costs

Labor is both the largest single operating expense and the most operationally critical factor in the success of a meat processing facility. Access to an adequate workforce is a decades-old challenge facing meat and poultry processors that has intensified with rising production costs, and nearly two-thirds of processors in a recent industry survey cited labor as their biggest operational challenge. ^[13] For a new facility entering a market where skilled processing labor is already scarce, developing a realistic, competitive, and sustainable staffing model is not an afterthought — it is a foundational element of project viability.

The staffing structure described here is prototypical and based on our experience with comparable facility projects, including Private Regional Study 1 (a comparable multi-species red meat processing feasibility study) and Private Regional Study 2 (a multi-species cooperative processing feasibility study), both completed by this firm, where detailed labor and organizational models were developed for facilities of similar multi-species scope. ^{[3][16]} As with throughput and facility design, final staffing determinations will be the product of Phase II analysis once governance, ownership structure, and operational parameters are more fully defined. Roles described below are intended to represent functions that must be performed rather than a definitive employee roster; in a small facility, it is common and often financially necessary for one individual to fill multiple roles simultaneously. ^[16]

Organizational Structure and Management

The management layer must cover leadership and governance, plant-level daily operations, food safety and regulatory compliance, and producer relationship management. These are non-negotiable functions regardless of throughput volume, which is why salaried labor represents the single largest fixed cost in small processing facility financial models. The sensitivity analysis in Private Regional Study 1 found that a 10% increase in total labor costs — largely driven by salaried positions — would push the operation into unprofitability.^[3]

- The **General Manager or Owner-President** bears overall responsibility for strategic direction, financial oversight, stakeholder relationships, and governance reporting. This position is critical and must be filled by someone with direct experience managing a meat processing operation or a closely analogous food production business. This management structure is consistent with the organizational framework developed in both Private Regional Study 1 and Private Regional Study 2.^{[3][16]}
- The **Plant Manager** is responsible for the day-to-day operation of the processing floor, including production scheduling, staffing oversight, coordination with the USDA inspector, and direct supervision of all processing personnel. In a small facility, the Plant Manager is often also the facility's HACCP coordinator.
- The **HACCP and Quality Assurance Manager** is a regulatory necessity, not an organizational luxury. The Federal Meat Inspection Act requires that establishments operating under federal inspection maintain functioning Sanitation Standard Operating Procedures and a Hazard Analysis and Critical Control Point plan.^[7] This position is responsible for developing, implementing, and maintaining the facility's HACCP plan across all species and product types.
- The **Business Manager** oversees producer-facing operations including scheduling, service agreements, billing, and broader business development. As a toll processing operation, the facility's revenue is entirely dependent on maintaining and growing a reliable base of producer clients.
- The **Farmer Coordinator** is a role we have found to be disproportionately important in regional processing facilities of this type. This position is the primary relationship manager for livestock producers — handling intake communications, processing instructions, scheduling coordination, and follow-up after pickup.^[14]

In Private Regional Study 1, the salaried management and administrative team — including the General Manager (\$95,000/year), Plant Manager (\$85,000/year), HACCP/Quality Assurance Manager (\$75,000/year), Business Manager (\$70,000/year), Farmer Coordinator (\$65,000/year), and administrative staff (\$50,000/year) — represented \$440,000 in annual salaried labor costs in Year 1, growing to \$504,000 by Year 3.^[3] These figures will inform the Anne Arundel financial model in Phase II, adjusted for any differences in organizational structure or ownership model chosen.

Production Staff

The hourly production workforce constitutes the operational backbone of the processing floor. In Private Regional Study 1, an 18-person hourly production team was structured as follows, with wages calibrated to competitive regional rates for specialized processing roles:^[3]

Position	Hourly Wage	Annual Cost
Lead Slaughter (1)	\$25/hr	\$52,000
Kill Floor Assistants (3)	\$21/hr	\$131,000 combined
Lead Cutter (1)	\$23/hr	\$48,000
Beef Cutters (3)	\$21/hr	\$131,000 combined
Small Animal Cutters (3)	\$20/hr	\$125,000 combined
Floater Cutter (1)	\$20/hr	\$42,000
Packers (2)	\$17/hr	\$71,000 combined
Shipping/Receiving (1)	\$17/hr	\$35,000
Sanitation/Cleanup (2)	\$17/hr	\$71,000 combined
Maintenance (1)	\$20/hr	\$42,000
Total Variable Labor (18 positions)		~\$748,000/year

For context, the Bureau of Labor Statistics reports a national median annual wage for butchers of \$38,960 as of May 2024 — approximately \$18.73 per hour — with skilled lead cutters and slaughter specialists commanding meaningfully higher wages.^[15] The wage schedule from Private Regional Study 1 reflects competitive mid-Atlantic rates for specialized processing work and should be considered a floor rather than a ceiling when planning for the Anne Arundel market, given the higher cost of living and tighter labor market in the greater Washington, D.C. corridor.

It is important to note that this staffing level reflects a facility operating at or near baseline throughput. At the Survey Baseline scenario of 2,100 annual head, the full 18-person production team would be over-staffed and several positions could be combined or reduced to part-time in the first year. A more realistic opening-year production crew might number 12–14 personnel, with additional hiring timed to throughput growth. This is one of the primary advantages of the hourly variable labor model: unlike refrigerated cooler space, staffing levels can be adjusted incrementally in response to actual volume.

The Multi-Species Labor Challenge

Key Finding: *In a multi-species facility, labor must either be cross-trained across all four species — commanding higher wages — or the facility must employ separate personnel with species-specific expertise, increasing headcount and cost.*

The Anne Arundel RAC’s multi-species mandate introduces a specific and important labor consideration. In a single-species facility, most cutting floor labor is trained for that one species. In a multi-species facility processing beef, hogs, sheep, and goats, labor must either be cross-trained across all four species — commanding higher wages — or the facility must employ separate personnel with species-specific expertise, increasing headcount and cost. Private Regional Study 2 identified this same dynamic explicitly, noting that under a multi-species facility, labor will either need to be cross-trained and skilled at processing all the products, or the facility will need to employ multiple people who are skilled in either one — and that either path carries higher costs than a single-species operation. ^[16]

Small plants often require a higher average skill level than large plants but cannot afford to pay a high wage through the employee-training period. ^[14] AAEDC should anticipate that recruiting skilled kill floor and cutter staff will require active outreach beyond standard job postings. The USDA’s Meat and Poultry Processing Workforce Technical Assistance Program, established specifically to address this gap, offers technical assistance and workforce training resources that the RAC project should explore as planning advances. ^[20]

Benefits, Overhead, and Labor Cost Sensitivity

Employee benefits and related overhead represent an additional cost layer of approximately 20% above base wages, covering mandatory employer contributions including Social Security, Medicare, unemployment insurance, and workers’ compensation — the latter being particularly significant in meat processing due to its classification as a high-risk industry. In Private Regional Study 1, benefits and overhead totaled \$202,000 in Year 1 and grew to \$241,000 by Year 3. ^[3]

Key Finding: *A 10% increase in total labor costs pushed Private Regional Study 1’s three-year financial position from net income of \$328,930 into a net loss of (\$106,150), while a 20% labor cost reduction improved net income to \$1.2 million — a swing of over \$1.7 million.*

Private Regional Study 1’s sensitivity analysis is instructive for Anne Arundel planning. A 10% increase in total labor costs pushed that facility’s three-year financial position from net income of \$328,930 into a net loss of (\$106,150), while a 20% labor cost reduction improved net income to \$1.2 million — a swing of over \$1.7 million driven entirely by this one variable. ^[3] Labor cost management, through competitive but controlled compensation, operational efficiency, cross-training, and staff retention strategies, is therefore among the most consequential decisions facility management will make.

Section 5: Financing Options and Their Impact on Project Feasibility

Financing a USDA-inspected multi-species slaughter and processing facility is a capital-intensive undertaking regardless of scale. The combination of specialized construction requirements, regulated refrigeration infrastructure, dedicated rail systems, and FSIS compliance costs creates a capital baseline that has historically limited the number of viable projects in underserved markets — which is precisely why federal and state governments have invested substantially in grant and loan programs to bridge the gap between what private capital alone can support and what rural and regional food systems need.

The Capital Challenge

A general rule of thumb for new beef processing facility construction is approximately \$100,000 per head of daily processing capacity.^[6] For a small to mid-sized USDA-inspected plant, total startup costs generally fall between \$750,000 and \$2.5 million, covering facility construction or renovation, equipment, and initial working capital, with equipment costs alone ranging from \$200,000 to over \$1 million.^[11] For the Anne Arundel RAC — a new build on a site requiring demolition, infrastructure upgrades, and wastewater management in the absence of municipal sewer — the capital requirement will be at the upper end of that range and likely beyond it. No single funding source will cover the full project cost.

Federal Grant Programs

- ***Meat and Poultry Processing Expansion Program (MPPEP)***

The most consequential and directly applicable federal funding source is the MPPEP, administered by USDA Rural Development. Since its launch in 2022, USDA has provided 74 awards totaling more than \$325 million through MPPEP to expand processing capacity and strengthen the food supply chain.^[21] Counties are explicitly eligible to apply for funding through MPPEP and can work with local partners to help strengthen local food systems,^[23] which positions AAEDC as a natural and strong candidate applicant.

In October 2025, USDA announced MPPEP Phase 4 (Round 4) with individual awards of up to \$2 million each, focused specifically on small processors and local supply chains. The USDA Rural Business-Cooperative Service anticipates opening applications in spring/summer 2026, with awards to be announced in Q2 2026.^{[26][31]} Phase 4 is being coupled with USDA's Guaranteed Business and Industry Loan Program, allowing up to \$25 million in guaranteed loans designed to increase local beef processing capacity.^[31] FSIS is also temporarily reducing overtime and holiday inspection service costs by 75% for very small establishments and by 30% for small establishments for FY2026.^[31] AAEDC should monitor USDA Rural Development program announcements directly at rd.usda.gov as eligibility criteria and application timelines are confirmed. The Phase I

feasibility study currently being completed is precisely the type of foundational documentation that strengthens MPPEP applications.

- ***Local Meat Capacity Grant (Local MCap) Program***

Also administered by USDA AMS, Local MCap provides a complementary and more accessible grant avenue. Equipment-only projects can receive between \$10,000 and \$250,000, while processing expansion projects are eligible for \$100,000 to \$5 million.

^{[22][27]} This program is well-suited for equipment-specific components of the capital stack and can be pursued in conjunction with or sequentially to a larger MPPEP award.

- ***Meat and Poultry Inspection Readiness Grant (MPIRG) Program***

MPIRG supports establishments working toward or upgrading a USDA grant of inspection, covering eligible costs associated with achieving FSIS compliance. Given that the Anne Arundel RAC will need to navigate the grant of inspection process from scratch, MPIRG is a directly relevant early-stage funding source. ^{[20][28]}

- ***Resilient Food Systems Infrastructure (RFSI) Program***

Administered in Maryland through the Maryland Department of Agriculture (MDA) under a cooperative agreement with USDA, RFSI provides a state-level complement. MDA has administered \$3.8 million through RFSI, with infrastructure grants ranging from \$100,000 to \$3 million available for capital investments including construction, processing equipment, building renovations, and cold storage, with a 50% match requirement for most applicants. ^[24] AAEDC should engage MDA directly to assess eligibility and timing for upcoming rounds.

Additional Federal Programs

The **Value-Added Producer Grant (VAPG) Program**, administered by USDA Rural Development through the University of Maryland Extension, provides grants for planning activities or operational costs directly related to value-added processing and marketing. ^[25]

The **Local Food Promotion Program (LFPP)**, administered by USDA AMS, funds planning and implementation grants (\$100,000 to \$500,000) for businesses that process, distribute, aggregate, or store locally produced food — categories that AAEDC and its partners could potentially satisfy. ^[30]

The **Community Facilities Direct Loan and Grant Program**, available through USDA Rural Development, provides low-interest direct loans and grants for essential community facilities in rural areas, including local food system infrastructure. ^[29]

USDA Technical Assistance

USDA has established the Meat and Poultry Processing Capacity – Technical Assistance (MPPTA) Program specifically to help applicants navigate USDA grant programs, prepare applications, and manage post-award requirements. MPPTA provides focused outreach including one-on-one advising, project and proposal reviews, and educational resources covering topics of interest for meat and poultry processing enterprises of all types. ^[20] Engaging MPPTA early in Phase II would be a prudent step.

Public Financing and County Investment

The structure of the county's own financial participation will significantly shape feasibility outcomes. Private Regional Study 1 explored a scenario in which the county owns the facility and leases it to the operating entity, with the lease structured at \$228,000 annually — a fixed facility cost that was modeled as affordable within baseline throughput scenarios while avoiding the capital burden of facility ownership for the operating entity.^[3] This structural option was evaluated in detail through a dedicated Lease vs. Buy Assessment and found to be the most operationally and financially viable arrangement for a county-sponsored facility at comparable throughput scales. This arrangement separates the county's real estate risk from the operator's operational performance risk — a meaningful distinction for both governance and financial management.

Anne Arundel County Economic Development Corporation can also explore participation in state economic development lending programs. The Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO) provides matching funds for RFSI grants and administers a range of agricultural lending programs. Engagement with MARBIDCO as a capital stack partner should be part of Phase II financing strategy development.

Impact of Financing Structure on Feasibility

Key Finding: *A project that finances 50% of its capital costs through grants rather than conventional debt could reduce annual debt service by several hundred thousand dollars — potentially the difference between positive and negative net income in the first three years.*

The composition of the capital stack has direct and quantifiable effects on project feasibility. The primary lever is debt service: facilities that rely heavily on conventional commercial debt face annual debt service obligations that can be difficult or impossible to absorb in the ramp-up years before throughput reaches stabilized levels. Private Regional Study 1 used interest expense of approximately \$178,000 annually, and the sensitivity analysis showed that even modest variations in volume or pricing could push the net income line negative.^[3]

By contrast, grant funding reduces or eliminates the principal on which interest is owed, directly lowering the annual fixed cost burden and improving the operational break-even point. The ownership and governance structure chosen for the RAC — whether county-owned and operator-leased, privately operated, structured as a cooperative, or developed as a public-private partnership — will determine which grant programs the project is eligible for, which financing structures are accessible, and how operational risk and reward are distributed among stakeholders. These structural decisions, along with a comprehensive financing strategy that sequences and layers available funding sources, will be primary deliverables of Phase II.

Section 6: Pre-Operational Decision Framework and Implementation Pathway

The sections preceding this one have described what the Anne Arundel RAC would look like once operational — its throughput, facility design, equipment, staffing, and financing structure. This section addresses the question that comes before all of that: what decisions must be made and what milestones must be reached before a single animal can be processed? The RAC does not yet have a finalized site, an adopted zoning text amendment, a selected governance model, a committed capital stack, or a USDA grant of inspection. Each of those conditions is a prerequisite — not a detail to be worked out later — and the sequence in which they are resolved matters. Some gates must be cleared before others can open.

The framework below organizes the pre-operational pathway into six sequential stages. Each stage contains a set of key decisions or actions and a gate condition — the specific threshold that must be reached before the project can meaningfully advance to the next stage. These are not rigid phases with fixed durations; some activities will overlap, and real-world conditions will shift the timeline. The framework is intended as a planning tool to make the critical path visible, not as a rigid schedule. A comparable phased implementation structure was developed in Private Regional Study 1 for a similar Maryland facility and served as a useful organizing framework for stakeholder planning and board-level decision-making.^[3]

Stage 1: Governance and Entity Formation

No meaningful external action — no grant application, no zoning petition, no site acquisition — can proceed with full authority until the entity that will own, operate, or sponsor the RAC has been identified and formalized. This is the foundational decision from which all others flow, because the governance model determines eligibility for specific grant programs, shapes the legal structure of site control and financing agreements, and defines who has decision-making authority over every subsequent choice. The ownership and governance structure chosen for the RAC — whether county-owned and operator-leased, privately operated, structured as a cooperative, or developed as a public-private partnership — will determine which grant programs the project is eligible for and how operational risk and reward are distributed among stakeholders.

Key decisions at this stage:

- What ownership model best serves the project’s mission and maximizes access to available grant programs? Options include county ownership with a professional operator lease, a producer-led cooperative, a private operator with county financial participation, or a formal public-private partnership structure.
- What legal entity will hold the grant applications, enter into contracts, and serve as the official applicant for USDA inspection?

Anne Arundel RAC Feasibility Study Phase I

- How will AAEDC’s role be defined relative to the operating entity — as owner, financier, guarantor, or some combination?
- What governance structure — board composition, producer representation, county oversight — provides appropriate accountability while enabling efficient operational decision-making?

Gate condition: A legal entity is formally established or designated, with documented authority to act on behalf of the RAC project. This entity must be in place before meaningful engagement with grant programs, legal counsel, or site control can proceed.

Stage 2: Regulatory Pathway and Zoning Resolution

The Anne Arundel RAC faces a specific and material regulatory prerequisite that distinguishes it from a generic facility siting exercise: slaughter activities are not currently a permitted use at the proposed site, and a zoning text amendment is required before that can change.^[2] This is not a minor administrative step. A zoning text amendment requires a formal public process including county planning board review, public comment, and County Council or equivalent body action. Until that amendment is adopted, no building permit for slaughter-related construction can be issued at the site, and no capital commitments for construction should be made. In parallel, early engagement with USDA FSIS and Maryland Department of Agriculture is essential to understand the full regulatory pathway to a federal grant of inspection before construction decisions are locked in.^[7]

Key decisions and actions at this stage:

1. Initiate and pursue to adoption the zoning text amendment required to permit slaughter activities at the proposed site. This should be the first regulatory action taken, as it sits on the project’s critical path and its timeline is controlled by the county’s legislative calendar, not by the project team.
2. Conduct a pre-application consultation with USDA FSIS to understand the specific requirements for a federal grant of inspection for a multi-species red meat facility, including HACCP plan requirements, facility design standards, inspector office and restroom specifications, and the timeline from application to approval.^[7]
3. Engage the Maryland Department of Agriculture to understand any state-level licensing, inspection, or environmental permit requirements that apply in addition to federal FSIS standards. Anne Arundel County environmental health requirements should also be identified at this stage.^[19]
4. Explore whether the Meat and Poultry Inspection Readiness Grant (MPIRG) program can be utilized to offset the costs of achieving FSIS compliance during the design and pre-construction phase.^[28]

Gate condition: The zoning text amendment has been adopted, or is formally pending with a clear path to adoption. FSIS and MDA pre-application consultations have been completed and the full regulatory pathway to a grant of inspection is documented. No construction commitments should precede zoning resolution.

Stage 3: Site Commitment and Infrastructure Planning

With governance established and the regulatory pathway clarified, the project can formally commit to a site and begin resolving the infrastructure questions that will determine the shape and cost of the facility. The proposed site's known constraints — the need for demolition of an existing structure and the absence of municipal water and sewer service — are material cost drivers that must be quantified before any construction budget or grant application can be grounded in reality.^[2] Water demand for slaughter operations alone can reach 8,000–10,000 gallons on peak kill days at Regional Draw throughput, making the water supply and wastewater disposal solution one of the most consequential infrastructure decisions the project faces.^{[3][12]}

Key decisions and actions at this stage:

1. Confirm site control through formal agreement — whether fee ownership, long-term ground lease, or a county-holds/operator-leases structure as explored in Private Regional Study 1. This confirmation is required before any engineering or design work can be commissioned.^[3]
2. Commission a site assessment and demolition cost estimate for the existing structure. The cost and timeline of demolition must be incorporated into the capital budget before grant applications are submitted.
3. Determine the water supply and wastewater disposal solution. Options include a high-capacity on-site well system, negotiated connection to a municipal system if feasible, or engineered effluent treatment on-site. Each option carries materially different capital and ongoing operating costs and different regulatory approval timelines.^[12]
4. Assess site access for livestock delivery vehicles, refrigerated product pickup, and waste removal. Overhead clearances, turning radii, and pavement ratings must support regular commercial and agricultural truck traffic.
5. Confirm electrical service capacity. Refrigeration systems, rail hoists, scalding equipment, and commercial smokehouses place significant combined electrical demand on the facility. Utility service upgrades, if required, carry long lead times.

Gate condition: Site control is formalized, demolition cost is estimated, and a water/wastewater solution is selected and costed. Infrastructure findings are incorporated into the capital budget that will underpin grant applications.

Stage 4: Capital Formation and Grant Application

With a legal entity, a resolved regulatory pathway, and a costed site picture, the project is positioned to pursue the capital stack in earnest. As described in Section 5, no single funding source will cover the full project cost. A layered capital stack combining federal grants, state programs, county investment, and potentially private equity or debt must be assembled before construction commitments can be made. The Phase I feasibility study now being completed is precisely the foundational documentation that MPPEP, RFSI, and similar grant programs expect applicants to have in hand.

Key decisions and actions at this stage:

1. Complete Phase II of the feasibility study to develop the detailed financial model, confirmed capital cost estimates, and financing scenarios that grant applications will require.
2. Engage USDA MPPTA for grant application technical assistance. MPPEP Phase 4 (awards up to \$2 million, anticipated Q2 2026) and RFSI (up to \$3 million with 50% match) are the priority programs. Applications must be monitored through rd.usda.gov and mda.maryland.gov respectively. ^{[20][24][26]}
3. Engage MARBIDCO as a potential matching funds partner for RFSI and as a source of agricultural lending. Determine whether county appropriation, USDA guaranteed loan financing, or private equity will fill any gap not covered by grants.
4. Finalize the county ownership and operator lease structure if that model is selected — including lease rate, term, and conditions — so that the operating entity’s financial model reflects a confirmed facility cost rather than an estimate. ^[3]
5. Conduct formal producer commitment outreach to convert the survey-documented latent demand into signed letters of intent or preliminary processing agreements. Grant applications and financial models gain significant credibility when backed by documented producer volume commitments rather than projections alone. ^[9]

Gate condition: The capital stack is fully committed — grant awards confirmed, debt terms finalized, county appropriation authorized — sufficient to fund construction, equipment, and working capital through the ramp-up period. No construction contract should be executed without a committed capital stack.

Stage 5: Facility Design, Construction, and Equipment Installation

With capital committed and the site cleared, the project enters the design and construction phase. This is when the facility scale decision (Compact vs. Full Regional, as discussed in Section 2) becomes final and irreversible — because the cooler footprint, kill floor dimensions, and rail system configuration cannot be materially changed after construction without the kind of costly renovation documented in comparable projects. ^{[4][6]} FSIS must be engaged throughout the design

process — not just at the end — to confirm that the facility layout will satisfy grant of inspection requirements before construction is locked in.^[7]

Key decisions and actions at this stage:

1. Select and engage an architect and/or engineer with direct experience in USDA-inspected meat processing facility design. This is a specialized project type — the regulatory requirements for floor drains, overhead rail heights, cold room construction, and inspector office placement are non-negotiable and not widely familiar to general commercial contractors.^{[8][18]}
2. Finalize the facility scale decision and confirm the functional zone layout as defined in Section 2. The cooler configuration, kill floor sizing, and value-added room inclusion must be locked before construction drawings are completed.
3. Submit construction plans to FSIS for pre-construction review. FSIS will evaluate the facility design for compliance with 9 CFR Part 416 sanitation requirements and grant of inspection standards before construction begins. Corrections required after construction are exponentially more expensive than corrections to drawings.^[7]
4. Develop the equipment procurement strategy in parallel with construction. Evaluate new versus used equipment; used equipment in good condition from facility closures is frequently available at substantially reduced cost and can meaningfully reduce startup capital requirements.^[3]
5. Complete construction, install equipment, and commission all refrigeration, rail, hot water, and drainage systems. Allow adequate time for system testing and commissioning before requesting FSIS inspection — deficiencies discovered during the grant of inspection walkthrough will delay the opening timeline.

Gate condition: Construction is complete, all equipment is installed and operational, and the facility has passed an internal readiness review confirming it is prepared to request FSIS inspection. The building permit has been closed out and all local health department requirements have been met.

Stage 6: Pre-Opening Operations and Grant of Inspection

This is the stage between a completed facility and a licensed, operating one. It is frequently underestimated as a timeline driver. Hiring qualified staff — particularly skilled kill floor personnel and a HACCP-qualified management team — in a tight regional labor market takes time that cannot be compressed. The HACCP plan must be developed, reviewed by FSIS, and accepted before inspection is granted. Producer scheduling agreements must be in place so that slaughter operations can begin at viable volume from day one rather than building from zero. A facility that opens with an empty processing calendar faces an immediate cash flow problem regardless of how well the construction phase went.^{[9][13][14]}

Key decisions and actions at this stage:

1. Hire the General Manager and Plant Manager first — these positions should ideally be filled before construction is complete so that the management team can oversee equipment commissioning, develop operational procedures, and lead the FSIS inspection readiness process. Waiting until the building is done to begin hiring creates a preventable gap. ^[3]
2. Develop and submit the HACCP plan to FSIS. The HACCP plan must address each species processed, each product category (slaughter, fabrication, ready-to-eat), and each critical control point across the full processing workflow. This is a substantial document requiring expertise; outside technical assistance is commonly used and is an eligible expense under MPIRG. ^{[7][28]}
3. Develop Sanitation Standard Operating Procedures (SSOPs) covering pre-operational sanitation, operational sanitation, and between-species cleaning protocols. SSOPs must be in place and documented before FSIS will grant inspection. ^[7]
4. Recruit and hire production staff. As discussed in Section 4, skilled kill floor and cutting personnel are in short supply in the regional labor market. Active outreach through vocational programs, culinary schools, and the USDA Meat and Poultry Processing Workforce Technical Assistance Program should begin well before the opening date. ^{[14][20]}
5. Execute formal processing agreements with producer clients covering species, volumes, scheduling windows, pricing, and pickup terms. The goal is to enter the first week of operations with a processing calendar that is meaningfully filled — not building a client base from scratch after the doors open. ^[9]
6. Request and receive the USDA Federal Grant of Inspection. This is the culminating regulatory milestone. A FSIS inspector will conduct a pre-operational inspection of the facility and documentation before assigning a permanent establishment number and authorizing the facility to begin slaughter operations under continuous inspection. ^[7]

Gate condition: USDA Federal Grant of Inspection received, management team and initial production staff are hired and trained, HACCP plan and SSOPs are approved and in force, and formal producer processing agreements are in place for sufficient opening-week volume. All of these conditions must be met before slaughter operations begin.

Pre-Operational Pathway Summary

The table below summarizes the six stages, their primary actions, and the gate condition that must be satisfied before the project advances. This is intended as a working reference for AAEDC and project stakeholders as planning progresses.

Stage	Primary Actions	Gate Condition to Advance
1. Governance and Entity Formation	Select ownership/governance model; establish or designate legal entity; define AAEDC role; identify stakeholder responsibilities	Legal entity established with documented authority to act for the RAC project
2. Regulatory Pathway and Zoning	Initiate zoning text amendment; FSIS and MDA pre-application consultations; identify state/county permit requirements; explore MPIRG	Zoning text amendment adopted (or pending with clear path); full regulatory pathway to grant of inspection documented
3. Site and Infrastructure	Formalize site control; demolition cost estimate; select water/wastewater solution; confirm utilities and access	Site control confirmed; infrastructure costs quantified and incorporated into capital budget
4. Capital Formation	Complete Phase II study; submit MPPEP/RFSI/MPIRG applications; engage MARBIDCO; finalize lease or ownership terms; conduct producer commitment outreach	Full capital stack committed — grants awarded, debt finalized, county appropriation authorized
5. Design, Construction, and Equipment	Engage specialized architect/engineer; finalize facility scale and layout; FSIS design review; construction; equipment procurement and installation; systems commissioning	Construction complete; all equipment operational; internal readiness review passed; building permit closed
6. Pre-Opening Operations	Hire GM and Plant Manager; develop and submit HACCP plan and SSOPs; hire and train production staff; execute producer processing agreements; request FSIS grant of inspection	USDA Grant of Inspection received; management and staff hired and trained; HACCP and SSOPs approved; producer agreements in place for opening-week volume
▼ Slaughter and Processing Operations Begin ▼		

The stages above reflect conditions specific to the Anne Arundel RAC as it currently stands. The project is presently in Stage 1 and Stage 2 concurrently — governance is not yet formalized and the zoning text amendment has not been adopted. These two stages do not have to be fully sequential; governance and zoning work can and should proceed in parallel. What cannot happen in parallel is moving to construction (Stage 5) before the capital stack is committed (Stage 4), or beginning slaughter operations before the grant of inspection is in hand (Stage 6). These sequencing rules are not procedural preferences — they are hard constraints, legal and regulatory. Phase II will develop the full implementation timeline with realistic milestone dates,

Anne Arundel RAC Feasibility Study Phase I

risk mitigation strategies for each stage, and contingency planning for the most likely delay scenarios.

Sources

All URLs verified as of April 2026.

[1] USDA National Agricultural Statistics Service (NASS), 2022 Census of Agriculture, County-Level Data — Maryland. <https://www.nass.usda.gov/Publications/AgCensus/2022/>

[2] Matson Consulting, LLC. Anne Arundel RAC Phase I Feasibility Study Draft, March 2026. (Outreach and survey findings sections.)

[3] Matson Consulting, LLC. Private Regional Study 1 (Multi-Species Red Meat Processing Facility Feasibility Study, 2025; Financial Summary, March 2025; Lease vs. Buy Assessment, February 2025). Unpublished. Available to AAEDC upon request.

[4] Kentucky Center for Agriculture and Rural Development (KCARD) / University of Kentucky, Overview for Developing a Custom or USDA-Inspected Meat Processing Plant, 2017. <https://www.kcard.info/meat-processor-resources>

[5] Iowa State University Extension, Guide to Designing a Small Red Meat Plant with Two Sizes of Model Designs, Publication PM 2077, 2009. <https://www.sare.org/resources/guide-to-designing-a-small-red-meat-plant/>

[6] Agri-Pulse Communications, “\$500M USDA Investment a ‘Start’ for Meat Capacity Expansion, but High Construction Costs Pose Challenge,” 2021. (Referencing This Old Farm, Lafayette, Indiana.) <https://www.agri-pulse.com/articles/16223-500m-usda-investment-a-start-for-meat-capacity-expansion-but-high-construction-costs-pose-challenge>

[7] USDA Food Safety and Inspection Service (FSIS), Summary of Federal Inspection Requirements for Meat Products. https://www.fsis.usda.gov/sites/default/files/media_file/2021-02/Fed-Food-Inspect-Requirements.pdf

[8] USDA / NCDA&CS, Facility Guidelines for Meat Processing Plants. <https://www.ncagr.gov>

[9] Gwin, L., A. Thiboumery, and R. Stillman. USDA Economic Research Service, Local Meat and Poultry Processing: The Importance of Business Commitments for Long-Term Viability, ERR-150, June 2013. <https://www.ers.usda.gov/publications/pub-details?pubid=45095>

[10] Food and Agriculture Organization (FAO), Standard Plans for a Small Abattoir and Meat Market. <https://www.fao.org>

[11] Startup Financial Projection Lab, Meat Processing Plant Startup Costs (industry benchmark data); Agri-Pulse, 2021. <https://startupfinancialprojection.com/blogs/capex/meat-processing-plant>

Anne Arundel RAC Feasibility Study Phase I

[12] Niche Meat Processor Assistance Network, Water Use Data from Small Processors. <https://www.nichemeatprocessing.org>

[13] Meat+Poultry, “A Force to Reckon With,” 2023. <https://www.meatpoultry.com/articles/30089-a-force-to-reckon-with>

[14] Niche Meat Processor Assistance Network, Meat Processor Workforce Management. <https://www.nichemeatprocessing.org/meat-processor-workforce-management/>

[15] U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, Butchers and Meat Cutters, May 2024. <https://www.bls.gov/ooh/production/butchers-and-meat-cutters.htm>

[16] Matson Consulting, LLC. Private Regional Study 2 (Multi-Species Cooperative Processing Feasibility Study, August 2023). Unpublished. Available to AAEDC upon request.

[17] Texas A&M University, “So You Want to Build a Slaughter Plant,” 2020. <https://animalscience.tamu.edu/2020/07/so-you-want-to-build-a-slaughter-plant/>

[18] Iowa Department of Agriculture and Land Stewardship, Meat and Poultry Inspection Bureau, Construction and Operation Guidelines. <https://iowaagriculture.gov/meat-poultry-inspection-bureau/construction-operation-guidelines>

[19] National Agricultural Law Center, State Compilations — Meat Processing. <https://nationalaglawcenter.org/state-compilations/meatprocessing/>

[20] USDA Agricultural Marketing Service, Meat and Poultry Processing Capacity – Technical Assistance Program (MPPTA). <https://www.ams.usda.gov/services/grants/mppta>

[21] Drovers, “Final Grants Through the Meat and Poultry Processing Expansion Program Announced,” September 2024. <https://www.drovers.com/news/industry/final-grants-through-meat-and-poultry-processing-expansion-program-announced>

[22] Meat+Poultry, “USDA Announces \$110 Million Investment in Meat, Poultry Processing,” December 2024. <https://www.meatpoultry.com/articles/30480-usda-announces-110-million-investment-in-meat-poultry-processing>

[23] National Association of Counties, “USDA Announces \$123 Million in Grant Funding for Meat and Poultry Processors,” September 2023. <https://www.naco.org/news/usda-announces-123-million-grant-funding-meat-and-poultry-processors>

[24] Maryland Department of Agriculture, Resilient Food Systems Infrastructure (RFSI) Program Grant Opportunities, January 2024. <https://news.maryland.gov/mda/press-release/2024/01/08/maryland-department-of-agriculture-in-partnership-with-usda-announces-resilient-food-systems-infrastructure-program-grant-opportunities/>

[25] University of Maryland Extension, Grants for Farmers — USDA Rural Development Value-Added Producer Grants. <https://extension.umd.edu>

Anne Arundel RAC Feasibility Study Phase I

[26] USDA Rural Development, Meat and Poultry Processing Expansion Program (MPPEP).
<https://www.rd.usda.gov/programs-services/business-programs/meat-and-poultry-processing-expansion-program>

[27] USDA Agricultural Marketing Service, Local Meat Capacity Grant (Local MCap) Program.
<https://www.ams.usda.gov/services/grants/localmcap>

[28] USDA Agricultural Marketing Service, Meat and Poultry Inspection Readiness Grant (MPIRG) Program.
<https://www.ams.usda.gov/services/grants/mpirg>

[29] USDA Rural Development, Community Facilities Direct Loan and Grant Program.
<https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program>

[30] USDA Agricultural Marketing Service, Local Food Promotion Program (LFPP).
<https://www.ams.usda.gov/services/grants/lfpp>

[31] Beef Magazine, “Help for Small Processors/Local Beef,” November 2025. (Referencing USDA MPPEP Phase 4 announcement.) <https://www.beefmagazine.com/policy/help-for-small-processors-local-beef>

[32] USDA Agricultural Marketing Service, Meat and Poultry Inspection Readiness Grant (MPIRG) Program — FY2022 Project Descriptions. (References West River Meats, LLC, a 4,500 sq. ft. USDA-inspected slaughter and processing facility operating in South Dakota.)
<https://www.ams.usda.gov/sites/default/files/media/MPIRGFY22ProjectDescriptions.pdf>

PRELIMINARY BREAK-EVEN ANALYSIS

Section 1: Purpose and Scope

This section presents the preliminary financial analysis component of the Phase I feasibility study for the proposed Anne Arundel Regional Agricultural Center (RAC). As the final analytical deliverable of Phase I, it is intended to establish whether the RAC concept is financially coherent at a planning level — that is, whether a facility of this type and scale, operating as a toll processor at plausible throughput levels, produces revenue and expense outcomes that are in reasonable alignment.

Phase I of this engagement has developed the foundational body of analysis on which any sound financial assessment must rest: a regional livestock supply inventory drawn from the 2022 USDA Census of Agriculture, a producer outreach survey documenting expressed processing demand and service requirements, a prototypical facility design and functional zone analysis, a staffing and labor cost assessment, an equipment inventory with capital cost ranges, a financing and grant program landscape, and a pre-operational implementation framework. This document draws on all of that prior work to construct a preliminary model that tests the concept against basic financial logic. All of that prior analysis is documented in the Phase I Preliminary Needs Assessment (Matson Consulting, 2026), to which this document is the financial companion.²⁵⁰¹⁵¹

Several framing clarifications are essential before the analysis is presented.

- **Operational costs only.** This analysis examines operational revenues and operating expenses only. Non-cash charges — depreciation, amortization, and interest expense — are excluded. Those charges are direct functions of capital structure decisions that are not yet made, and embedding them in a preliminary model would create a false sense of precision. Capital cost estimates for the facility and equipment are presented separately in Section 6 of this document as reference context, but they are deliberately excluded from the operating model.
- **Toll processing scope.** Revenue is modeled exclusively from toll processing fees for whole, half, and quarter carcass preparation: per-pound processing fees, kill fees, and offal fees. The analysis does not include retail sales, direct-to-consumer revenue, value-added product margins, or specialized cut work. Those revenue streams are real and potentially meaningful, but they require confirmed market relationships and pricing that are not yet established.
- **Loosely applied estimates.** Head count projections and fee structures are based on broadly applicable industry benchmarks and general regional demand data, applied as a

⁵⁰ U.S. Department of Agriculture, National Agricultural Statistics Service. 2022 Census of Agriculture. Washington, D.C.: USDA NASS, 2024. <https://www.nass.usda.gov/AgCensus>

⁵¹ Matson Consulting, LLC. Anne Arundel Regional Agricultural Center Phase I Preliminary Needs Assessment. Prepared for Anne Arundel Economic Development Corporation. 2026.

preliminary framing tool. They are not derived from formal producer commitments or confirmed pricing agreements. Any single line item in the expense model — particularly labor, utilities, or insurance — could shift by a meaningful percentage between now and implementation.

- **No facility or equipment costs in the operating model.** The operating model does not include depreciation on facility construction or equipment purchases. These are one-time capital expenditures whose annual impact depends entirely on the financing structure, which has not been determined. Capital cost estimates are provided in Section 6 as separate reference context only.

Note: This is a planning-level assessment appropriate to the concept stage at which the RAC currently stands. The figures presented should not be used as the basis for capital commitments, grant applications, or binding financial projections without further analysis grounded in confirmed, project-specific data.

Section 2: Throughput and Fee Assumptions

The throughput assumptions used in this analysis are loosely derived from the regional livestock supply data and producer survey findings documented in the Phase I Preliminary Needs Assessment. They represent an intermediate planning scenario intended only to test whether the RAC concept can approach breakeven at plausible throughput levels. No formal producer commitments underlie these figures.

The proposed RAC is conceived from the outset as a regional resource, not a single-county facility. The throughput figures below reflect an intermediate planning scenario consistent with a multi-county draw area encompassing Anne Arundel and neighboring Southern Maryland counties — a market footprint that the Phase I supply analysis indicates can realistically support this volume. Processing facilities of this type and scale routinely serve producers across a 50–100 mile radius, and the Anne Arundel county livestock inventory alone is insufficient to sustain the concept at this scale. A regional draw is not an optimistic assumption; it is the foundational premise of the RAC and the lens through which the throughput scenarios below should be read. Phase II will test that premise with greater precision.

Annual Head Count Assumptions

Species	Annual Head	Est. Avg. Carcass Wt. (lbs)	Est. Annual Carcass Lbs.
Beef Cattle	1,510	708	1,069,080

Hogs / Swine	410	195	79,950
Sheep / Lamb	530	65	34,450
Goats	230	40	9,200
Total	2,680	—	1,192,680

Carcass weight figures are conservative planning estimates based on industry benchmarks. Beef carcass weight of 708 lbs is calibrated to the mixed pasture-raised and cow-calf producer profile typical of the region; national commercial steer averages run higher (~908 lbs per USDA, 2023) due to grain-finishing. Hog carcass weight of 195 lbs reflects direct-market hog production; the national commercial average is approximately 212 lbs (USDA ERS, 2024). Sheep carcass weight of 65 lbs is consistent with American Sheep Industry Association-reported weekly dressed weights of 60–65 lbs for 2024. Goat carcass weight of 40 lbs reflects typical market-weight kids in the Mid-Atlantic ethnic market. For sheep and goats, carcass weight is informational only — it does not enter the revenue calculation, which is based on flat per-head fees for those species.⁶⁵²⁵⁵³

Fee Structure

The fee structure below reflects prevailing market rates for USDA-inspected toll processing of whole, half, and quarter carcasses in the Northeast and Mid-Atlantic region, established through benchmark research conducted during Phase I. For beef and hogs, revenue is generated through a combination of a per-pound carcass processing fee plus per-head kill and offal fees. For sheep and goats, revenue is generated through a flat per-head processing fee plus per-head kill and offal fees — a structure consistent with standard market practice for small ruminants at this scale, where most USDA-inspected facilities in the Northeast and Mid-Atlantic apply flat fees for market-weight animals rather than per-pound rates. Kill fees modeled here are consistent with current rates at comparable USDA-inspected facilities in the Northeast region (Northeast Kingdom Processing, Vermont, 2026; multiple Vermont Sheep & Goat Association facility listings, 2024).⁴⁵⁴

Fee Component	Beef	Hogs	Sheep	Goats
Processing Fee (\$/lb carcass)	\$1.30	\$1.30	—	—
Flat Processing Fee (\$/head)	—	—	\$100	\$100
Kill Fee (\$/head)	\$100	\$100	\$50	\$50

⁵² American Sheep Industry Association. Weekly Lamb and Yearling Slaughter and Dressed Weight Report. Englewood, CO: ASI, 2024. <https://www.sheepusa.org>

⁵³ U.S. Department of Agriculture, Economic Research Service. Livestock, Dairy and Poultry Outlook. Washington, D.C.: USDA ERS, 2024. <https://www.ers.usda.gov/publications/pub-details/?pubid=107760>

⁵⁴ Northeast Kingdom Processing. Custom and USDA-Inspected Processing Price List. West Glover, VT, 2026. <https://www.nekprocessing.com/price-list-2>

Offal Fee (\$/head)	\$25	\$20	\$15	\$15
---------------------	------	------	------	------

Section 3: Preliminary Revenue Estimate

Applying the fee structure to the throughput assumptions produces the following estimated annual revenue by species and fee type.

Revenue Component	Beef	Hogs	Sheep	Goats
Processing (\$/lb × carcass lbs)	\$1,389,804	\$103,935	—	—
Flat Processing Fee (\$/head)	—	—	\$53,000	\$23,000
Kill Fee	\$151,000	\$41,000	\$26,500	\$11,500
Offal Fee	\$32,500	\$7,500	\$7,950	\$3,450
Species Total	\$1,578,554	\$153,135	\$87,450	\$37,950

Estimated Total Annual Revenue (Operational)	\$1,857,089
---	--------------------

Section 4: Preliminary Expense Estimate

The expense estimate is derived from comprehensive operating cost benchmark research conducted during Phase I covering 22 cost categories, drawing on BLS, USDA, EIA, university extension publications, and industry sources. Midpoint figures from that research are organized below into the broad operational categories used in pro forma financial analysis.⁵⁵

This model reflects Year 1 operating costs only. Depreciation and interest expense are excluded — both are functions of the capital structure, which has not been determined. The Unforeseen and Contingency Expenses line is calculated at 4.0% of estimated Year 1 revenue. Rendering, waste removal, and byproduct disposal costs are incorporated within the Total Variable Operating Costs line.

Note: Individual cost categories carry meaningful uncertainty. A shift of even a few percentage points in any major line — labor, utilities, or insurance in particular — would move the modeled result materially. These figures are order-of-magnitude benchmarks, not budget line items.

⁵⁵ U.S. Bureau of Labor Statistics. Occupational Employment and Wage Statistics (OEWS): Butchers and Meat Cutters (SOC 51-3021). Washington, D.C.: BLS, 2024. <https://www.bls.gov/oes/current/oes513021.htm>

Pro Forma Operating Statement

Operating Category / Line Item	Estimated Annual Amount
REVENUE	
Processing Fees, Kill Fees & Offal Fees (Toll Processing)	\$1,857,089
Total Revenue	\$1,857,089
Total Variable Operating Expenses	(\$628,625)
Variable Margin (Loss)	\$1,228,464
Total Equipment Expenses	(\$151,875)
Total Facilities Expenses	(\$191,000)
Total Selling & Marketing Expenses	(\$42,000)
Total General & Administrative Expenses	(\$763,183)
Total Contingency	(\$74,284)
Earnings EBITDA (Loss)	\$6,123
Net Income	\$6,123

Net Income reflects Year 1 operational revenue less all operating expenses. Depreciation and interest expense are excluded — both are functions of the capital structure, which has not been determined. See Section 6 for capital cost reference context.

Section 5: Preliminary Breakeven Finding

At the throughput levels and fee structure modeled here, estimated Year 1 operating revenue of approximately \$1,857,000 exceeds estimated operating expenses by approximately \$6,100. That is a slim positive operating result — less than half a percent of total revenue — but it is a positive one, and the directional signal matters at this stage. The facility is operating at or near the operational breakeven threshold at modeled Year 1 throughput levels.

What this finding indicates is that the RAC's general economic structure is internally consistent at plausible regional throughput levels. A facility of this type, operated as a toll processor with this species mix and fee structure, generates a revenue base that is in reasonable alignment with the operating expense profile for a facility of this scale. The concept is not inherently unviable at Year 1 throughput levels. That is the appropriate conclusion from a preliminary model of this kind — and it is the basis on which Phase II should proceed.

Note: This result is operational only and does not include depreciation, interest, or any return on capital. Those charges are functions of the capital structure, which has not been determined. A facility with substantial grant funding and limited debt service is well-positioned to achieve operational viability at this revenue level once the expense model is finalized. A facility carrying conventional commercial debt would require higher throughput or revenue to achieve the same outcome. Capital structure remains the most consequential variable — see Section 6.

Key Observations

- **Labor dominates the cost structure.** Combined variable labor, salaried labor, and payroll burden account for approximately 56% of total modeled operating expenses. This concentration is typical for USDA-inspected processing operations and underscores that throughput volume — which drives labor productivity — is among the most consequential variables in any financial model for a facility of this type.
- **Beef drives revenue.** Beef cattle account for approximately 85% of total modeled revenue, primarily through the per-pound processing fee. This concentration means that beef throughput is the most sensitive assumption in the model: a 10% reduction in beef head count reduces revenue by approximately \$158,000 (reflecting 151 fewer head at 708 lbs carcass weight at \$1.30/lb, plus lost kill and offal fees).
- **Small ruminant revenue is meaningful at this fee structure.** Sheep and goats together generate approximately \$125,400 in revenue — about 7% of total — while representing approximately 28% of head count. The revenue structure uses flat per-head processing fees for these species rather than per-pound rates, consistent with standard market practice in the Northeast and Mid-Atlantic for market-weight small ruminants. Value-added services and specialty cuts for small ruminants represent an area where additional revenue could be meaningful.
- **Wastewater carries the widest cost uncertainty.** High-strength meat plant effluent can generate significant surcharges from municipal wastewater treatment authorities without pretreatment. This line item is highly site-dependent and should be validated as a priority in site selection.

Preliminary Revenue Sensitivity

The table below illustrates the revenue impact of proportional changes in total throughput volume. Because the RAC's fee structure applies both per-pound and per-head components, revenue does not scale perfectly linearly with head count — but the approximation is close. Each 10% change in aggregate throughput produces a revenue shift of approximately \$156,000. This

sensitivity underscores the importance of producer commitment and scheduling discipline in Phase II planning. Full operating-result sensitivity (net of expenses) will be modeled in the Phase II financial analysis once the expense model is finalized.

Scenario	Head Change	Est. Annual Revenue (Y1)	Revenue vs. Base
-20% Throughput	2,144 head	\$1,485,671	-\$371,418
-10% Throughput	2,412 head	\$1,671,380	-\$185,709
Base Scenario (Year 1)	2,680 head	\$1,857,089	—
+10% Throughput	2,948 head	\$2,042,798	+\$185,709
+20% Throughput	3,216 head	\$2,228,507	+\$371,418

Revenue scenarios apply a proportional throughput adjustment across all species. Each 10% change in aggregate throughput produces approximately \$186,000 in annual revenue impact. Given that the Year 1 base scenario sits near operational breakeven, modest throughput growth above the base produces a meaningfully positive result; a meaningful shortfall produces a deficit. Phase II planning should focus on identifying the producer commitments needed to sustain throughput at or above the Year 1 base level.

Section 6: Preliminary Capital Cost Context

While capital costs are excluded from the operating model presented in Sections 3 through 5, Phase I research has produced sufficient benchmark data to establish a preliminary planning range for facility construction and equipment. These figures are presented here as reference context only — not as a project budget, not as an input to the operating model, and not as a basis for financing decisions. Their purpose is to establish the order of magnitude of the capital investment that a USDA-inspected multi-species facility at this throughput scale would require.

Note: The capital cost estimates below are derived from published industry benchmarks and comparable project data. They do not reflect confirmed bids, site-specific engineering estimates, or project-specific design decisions. Actual costs will vary based on site conditions, construction market conditions, facility scale selection, and the extent of infrastructure improvements required.

Facility Size Estimate

At approximately 2,680 annual head across four species, the RAC operates at a scale consistent with a facility in the 7,500 to 10,000 square foot range of enclosed processing and support space, based on functional zone analysis conducted in Phase I and industry design standards from Iowa State University Extension and the University of Kentucky. This range accommodates the kill floor, carcass cooler, fabrication room, packaging, freezer, USDA inspector office, and employee support areas appropriate to this throughput level, with lairage and holding pens as covered outdoor space in addition.⁷⁵⁶

A planning midpoint of approximately 8,750 square feet of enclosed space is used for the construction cost range below.

Construction Cost Range

Published benchmarks for new ground-up USDA-inspected meat processing facility construction in the Mid-Atlantic region range from approximately \$400 to \$500 per square foot for all-in turnkey construction, including hard construction, refrigeration systems, and permanent infrastructure. This range is consistent with Texas A&M University Department of Animal Science guidance indicating renovation costs of up to \$450 per square foot in higher-cost areas for food processing facilities (Griffin and Maddock, 2025), the Niche Meat Processor Assistance Network’s general rule of thumb of \$300 per square foot (which pre-dates recent construction cost escalation and should be treated as a floor rather than a current estimate), and comparable project data from USDA MPPEP grant precedents reviewed during Phase I. Commercial cold storage and food manufacturing construction in the Mid-Atlantic region independently corroborates the \$400–\$500 range for specialized facilities of this type.¹⁰⁵⁷⁹⁵⁸⁸⁵⁹

Scenario	Square Footage	Cost per Sq. Ft.	Est. Construction Cost
Low	7,500 sf	\$400/sf	\$3,000,000
Mid	8,750 sf	\$450/sf	\$3,937,500
High	10,000 sf	\$500/sf	\$5,000,000

Construction cost estimates are for enclosed processing space only and exclude lairage, site preparation, demolition of existing structures, utility connection fees, and off-site infrastructure improvements.

⁵⁶ Lawrence, J.D. and M.A. Boggess. Guide to Designing a Small Red Meat Plant. Ames: Iowa State University Extension, 2021. <https://store.extension.iastate.edu/product/guide-to-designing-a-small-red-meat-plant>; and University of Kentucky Cooperative Extension Service. Overview for Developing a Custom or USDA-Inspected Meat Processing Plant. Lexington: University of Kentucky, 2020.

⁵⁷ U.S. Department of Agriculture, Agricultural Marketing Service. Meat and Poultry Processing Expansion Program (MPPEP). Washington, D.C.: USDA AMS, 2025. <https://www.ams.usda.gov/selling-food/meat-poultry-processing/mppep>

⁵⁸ Niche Meat Processor Assistance Network (NMPAN). Resources for Small and Very Small Meat Plants. Corvallis: Oregon State University, 2023. <https://www.nichemeatprocessing.org>

⁵⁹ Griffin, D. and T. Maddock. Small-Scale Meat Processing Facility Construction and Renovation Cost Estimates. College Station: Texas A&M University Department of Animal Science, 2025.

Equipment Cost Range

Capital equipment for a USDA-inspected multi-species red meat facility at this scale includes kill floor equipment (stunning, hoisting, bleeding rail, scalding and dehair system for hogs, skinning equipment for beef), carcass handling and overhead rail systems, cold storage and refrigeration (carcass cooler, aging room, finished product freezer), fabrication and cut floor equipment, and packaging equipment. Based on University of Kentucky Extension benchmarks adjusted for 2026 Mid-Atlantic conditions, and corroborated by equipment cost data compiled during Phase I:

Equipment Category	Low	High	Midpoint
Kill Floor & Slaughter Equipment	\$80,000	\$150,000	\$115,000
Rail Systems & Carcass Handling	\$30,000	\$60,000	\$45,000
Refrigeration & Cold Storage	\$120,000	\$180,000	\$150,000
Fabrication & Cut Floor	\$50,000	\$100,000	\$75,000
Packaging Equipment	\$30,000	\$60,000	\$45,000
Value-Added / Smoking (Optional)	\$60,000	\$95,000	\$77,500
Water, Waste & Utility Infrastructure	\$30,000	\$55,000	\$42,500
Total Equipment	\$400,000	\$700,000	\$550,000

Equipment estimates assume new purchase pricing. Used equipment from facility closures, which is frequently available in the market, can reduce this figure by 20–40%.

Total Estimated Capital Investment Range

Component	Low	Mid	High
Facility Construction	\$3,000,000	\$3,937,500	\$5,000,000
Equipment	\$400,000	\$550,000	\$700,000
Total Capital Investment	\$3,400,000	\$4,487,500	\$5,700,000

These figures do not include site acquisition, demolition, off-site utility improvements, working capital reserves, pre-opening costs (HACCP development, staff hiring and training, permitting), or any contingency on the capital budget. All of those items will add to the total project cost and will be modeled in detail once site selection, facility scale, and financing structure decisions are confirmed.

Note: The capital cost range above illustrates why the composition of the financing structure — specifically the proportion funded by grants versus debt — is among the most consequential decisions facing this project. A facility financed primarily through grants carries no debt service and can sustain operations at the revenue levels modeled here. A facility carrying \$3–\$4 million in conventional debt at current interest rates would face annual debt service well in excess of the operating surplus shown in Section 5, making throughput growth and revenue diversification essential to long-term viability.

Section 7: Capital Structure and Financing Scenario

The preceding sections establish that the RAC concept is operationally coherent at Year 1 throughput levels, generating approximately \$1.86 million in operating revenue and a slim positive EBITDA on an operating-only basis. This section addresses the question that follows naturally: what does the financial picture look like when the full capital requirement — facility acquisition, equipment, and the debt service those investments generate — is layered into the model? The analysis below is a preliminary illustration using planning-level assumptions. It is intended to give the AAEDC and its partners a directional sense of total capital need, financing structure, and the throughput requirement to achieve viability on a fully-loaded basis.

Total Capital Need and Sources of Funds

Based on the facility size and equipment profile developed in Section 6, total estimated capital requirements are approximately \$4,512,500. This figure encompasses equipment purchase (\$550,000), building and land acquisition (\$3,937,500), pre-opening and startup costs (\$10,000), and other uses (\$15,000). No grant funding is assumed in this scenario; the analysis reflects a fully self-funded capital raise. The table below summarizes the assumed sources and uses structure.

	Amount	% of Total
SOURCES OF FUNDS		
Owner's / Member Equity	\$1,371,250	30.4%
Equipment Loan Proceeds	\$385,000	8.5%
Building Loan Proceeds	\$2,756,250	61.1%

Grant Funding	—	0.0%
Total Sources	\$4,512,500	100.0%
USES OF FUNDS		
Equipment Purchase	\$550,000	12.2%
Building / Land Purchase	\$3,937,500	87.3%
Working Capital Reserve	—	0.0%
Pre-Opening / Startup Costs	\$10,000	0.2%
Other Uses	\$15,000	0.3%
Total Uses	\$4,512,500	100.0%

The financing structure assumes that 70% of both the equipment and building/land costs are financed through conventional debt, with the remaining 30% funded through owner or member equity. Total equity required under this structure is approximately \$1,371,250. Total debt financing is \$3,141,250. The debt-to-equity ratio is 2.29x, with approximately 69.6% of the total project financed by debt.

This scenario assumes no grant funding. The Phase I Preliminary Needs Assessment (Matson Consulting, 2026) documents a substantial landscape of USDA and state grant programs — including MPPEP, Local MCap, MPIRG, and Maryland RFSI — that could meaningfully reduce the equity requirement and improve the debt-to-equity ratio. A scenario incorporating grant funding will be modeled in Phase II.

Loan Terms and Annual Debt Service

The two loan components — equipment financing and building/land financing — are modeled on separate terms appropriate to each asset class. Equipment is financed over 15 years at 6.5% annually; building and land over 20 years at 6.5% annually. These rates reflect current conventional commercial lending benchmarks for agricultural and food processing facilities. Combined annual debt service is approximately \$291,093.

	Equipment Loan	Building / Land Loan	Combined
Principal Amount	\$385,000	\$2,756,250	\$3,141,250
Interest Rate (Annual)	6.5%	6.5%	—
Loan Term	15 years	20 years	—

Annual Payment	\$40,946	\$250,147	\$291,093
Owner Equity Contribution	\$165,000	\$1,206,250	\$1,371,250

Annual debt service of \$291,093 is the single largest addition to the cost structure when moving from the operating-only model to the fully-loaded model. At the Year 1 operating-only throughput of 2,680 head, EBITDA is approximately \$6,100 — well below the debt service requirement. Achieving positive net income requires a meaningfully higher throughput level, which is the basis for the expanded head count scenario modeled below.

Depreciation

Depreciation in this model is calculated on a straight-line basis, allocating the depreciable asset value evenly over the useful life of each asset class. Total annual depreciation expense in this scenario is \$151,125. Depreciation is a non-cash charge — it reduces reported net income but does not represent an out-of-pocket cash outflow — and its treatment has meaningful implications for tax planning and financial reporting.

Important Disclaimer: Matson Consulting, LLC is not a licensed accounting or tax advisory firm. The depreciation methodology presented here is a planning-level illustration only. Actual depreciation schedules, tax treatment, and financial reporting decisions should be determined in consultation with a qualified Certified Public Accountant (CPA) or tax professional with experience in agricultural and food processing operations. The choice of depreciation method, asset classification, and applicable tax elections can have significant financial consequences and should not be made based solely on this analysis.

Expanded Throughput Scenario and Pro Forma

To absorb the additional cost of depreciation (\$151,125) and interest expense (\$204,181) — a combined \$355,306 in annual charges above the operating-only model — a meaningfully higher throughput level is required. The expanded scenario modeled here targets approximately 3,450 total head in Year 1, distributed across the same four-species mix, at the same fee structure as the operating-only model. At this throughput level, Year 1 revenue reaches approximately \$2,478,320.

The table below presents the fully-loaded Year 1 pro forma for the capital-inclusive scenario. Variable costs scale with the higher throughput; fixed cost categories — equipment, facilities, marketing, and G&A — remain consistent with the operating-only model. The result is an EBITDA of \$356,497, which, after depreciation and interest, produces a net income of approximately \$1,191.

Revenues (Sales)	\$2,478,320
Total Variable Operating Costs	(\$838,911)

Variable Margin (Loss)	\$1,639,409
Total Equipment Costs	(\$151,875)
Total Facilities Costs	(\$191,000)
Total Selling and Marketing Costs	(\$42,000)
General and Administrative Expenses	(\$798,903)
Unforeseen and Contingency Expenses (4%)	(\$99,133)
Earnings EBITDA (Loss)	\$356,497
Depreciation Expense (Straight-Line)	(\$151,125)
Interest Expense	(\$204,181)
Net Income	\$1,191

The near-zero net income at 3,450 head reflects the cost of the assumed capital structure. The model is operating at or very near the net income breakeven threshold for a fully debt-financed facility. As with the operating-only scenario, the capital structure is the most consequential variable: a facility that secures meaningful grant funding — reducing debt principal and annual debt service — would achieve positive net income at a substantially lower throughput level. Conversely, a facility with higher-cost debt or a shorter amortization schedule would require even higher throughput to break even.

The incremental throughput required to move from the operating-only breakeven (~2,680 head) to the fully-loaded breakeven (~3,450 head) is approximately 770 additional annual head. At the modeled species mix, this represents approximately 540 additional beef head and proportional increases in pork, sheep, and goat. This is the specific gap that producer outreach, commitment agreements, and regional draw expansion in Phase II should be designed to close.

Section 8: Interpretation

The preliminary analysis presented in this document produces a constructive finding: the RAC concept is financially coherent at the operating level, at plausible throughput volumes, with a fee structure grounded in current market benchmarks. Revenue and expenses are in alignment, with a modest positive margin. That is the right result for a planning-level test of concept — not a guarantee of viability, but a meaningful signal that the idea is worth continued development.

The operating-only model presented in this document — excluding depreciation and debt service — shows that the facility can generate approximately \$1.86 million in Year 1 operating revenue at the modeled 2,680-head throughput level, producing a slim positive operating result of

approximately \$6,100. That finding is the appropriate conclusion from a preliminary operating-only analysis: the RAC's revenue and cost structure are in alignment at plausible throughput levels, and the concept merits the deeper analysis that Phase II will provide. The addition of capital expenditure, financing, and debt service is addressed separately in Section 7. See the Phase I Preliminary Needs Assessment (Matson Consulting, 2026) for the full financing and grant program landscape.

The capital-inclusive scenario presented in Section 7 adds a meaningful but navigable layer of complexity to the financial picture. When full capital expenditure is incorporated — equipment acquisition of \$550,000, building and land purchase of \$3,937,500, and the debt service those investments generate — the facility requires approximately 3,450 annual head across the four-species mix to achieve net income breakeven. At that throughput level, Year 1 revenue reaches approximately \$2,478,320, producing EBITDA of \$356,497. After straight-line depreciation of \$151,125 and interest expense of \$204,181 on combined debt of \$3,141,250, net income is approximately \$1,191. That is, again, a slim positive result — but a positive one, and it is achieved under a conservative assumption set: no grant funding, conventional commercial debt rates, and 70% debt financing on both asset classes. The introduction of any meaningful grant funding — a realistic outcome given the USDA and state programs documented in the Phase I financing landscape — would reduce debt principal, lower annual debt service, and shift the net income breakeven threshold to a materially lower throughput level. The capital scenario does not undermine the operating case; it defines the capital fundraising and producer commitment targets that Phase II must be designed to meet.

Taken together, the Phase I analysis establishes that the Anne Arundel RAC is a concept with a sound regional rationale, a financially coherent operating structure at the modeled throughput level, and a capital challenge that is substantial but manageable — particularly given the grant programs documented in the Phase I financing landscape. The operating-only finding and the capital-inclusive scenario together provide the starting point for Phase II, where site selection, producer commitment analysis, and detailed financial modeling will sharpen every assumption made here.