# Appendix C:
# Faunal Report

Choptank Road/Wilson Farmstead Tenancy
Faunal Report
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1. Introduction

Faunal remains were recovered from the yard areas around the house and across the site in varying densities. The greatest concentrations were located in the West Yard and House areas. These deposits may well have formed as a single deposit that was eventually dispersed over the house area. All other yard areas contained minimal amounts of faunal remains. The faunal assemblage provided insights into the kinds of foods consumed and potentially how residents obtained their meats. As a rural farmstead site, the Choptank Road/Wilson Farmstead Tenancy site faunal assemblage was expected to reveal a primary reliance on domesticated livestock for food although, given the rich environment of the site location, it was also highly probable that certain kinds of wildlife were exploited such as fish, turtles and birds. It was expected that residents raised and butchered their own livestock. However, a consideration of the kinds of refuse represented in the deposits indicated that it was unlikely that butchering took place at this location. Pig and cattle were represented by too small a range of skeletal elements and had a relatively high repetition of similar meat cuts. It appears that beef and pork meat cuts were purchased and that wildlife species were used to supplement the diet.

2. Methodology

Each bone specimen was identified by species when possible and otherwise by class and size range category. For the purposes of this report, large mammal is equivalent in size to cattle, medium mammal to pig and small mammal to woodchuck or smaller. Table 1 summarizes the faunal assemblage by Analytical Unit, Class, Species and Size-range Category. This table presents two counts, the Total Number of Bone Fragments (TNF) and the Minimum Number of Bone Units (MNU). In brief, the TNF count serves as a curation tool, indicating the absolute number of bone fragments for a given row of data. The MNU count is an adjusted bone count based on the number of actual skeletal elements represented for a given species for a given row of data. Not all rows of data received an adjusted bone count (MNU), as its application was used only when one or more skeletal elements were identified. For example, a crushed pig scapula consisting of 12 bone fragments would be tallied as 12 TNF, and receive an adjusted count of 1 MNU. For another example, a mandible, a lower molar, and canine would be indicated in a table as one head as opposed to three MNU.

Each bone specimen was further identified by skeletal element, portion, and age at death, when possible. All apparent bone modifications were recorded. The term “bone modification” means the physical alteration of the original appearance of a skeletal element either by human, animal or natural agent. Bone modifications at this site included butcher marks, gnaw marks, heat exposure, and weathering.

Identifications were made with the aid of a comparative skeletal type collection and the use of references including but not limited to: Brown and Gustafson (1979), Canon 1987), (Cornwall (1956), Lyman (1977), Olsen (1964, 1968), Pipes (1995), Schmid (1972) and Ubaldi and Grossman (1987).

In the report, the term "dietary refuse," "processing waste" and “trimming waste” describe the refuse types, each with a specified meaning. "dietary refuse" was used to describe food refuse or table scraps: for example, the bones from a roast, a ham steak or chicken wings. Typically on historic sites, the term "processing waste" is used to describe bone waste generated during the preparation of a meat dish: for example, a mandible resulting from the extraction of the tongue. “Trimming waste” consists of the removal of inedible parts of a whole or partial carcass such as the feet of sheep. Figures 1 and 2 illustrate how beef and pork carcasses were typically reduced during the nineteenth century (Ubaldi and Grossman 1987). The description of meat cuts that follows references the terms in the figures.

3. Data

In the report that follows the faunal data from each analytical unit (AU) is discussed as a whole. Given the general mixed nature of late nineteenth to early twentieth century deposits materials at the site, no attempt was made to isolate the contents of specific units or features. Table 1 summarizes the range of class and species recovered by Analytical Unit (AU).

a. North Yard

The North Yard deposits yielded a fair amount of bone, the largest concentrations of which appeared in Units 2 and 16 within the midden area. The faunal remains consisted mainly of domesticated mammal and bird though wild mammal, wild bird, fish and turtle bone were also present (Table 1). Cattle and pig were the most abundant species. All other species were indicated by a small number of bone fragments. Pig and cattle were represented by processing waste and dietary refuse. In the case of pig, most of the processing waste consisted of loose upper and lower teeth from a minimum of two individuals both aged at about one year at death. Pork cuts included a trotter, shank ham and ham hock. Cattle processing waste included a mandibular hinge and teeth aged at less than 3 ¾ years at death. Beef cuts included a loin steak, short rib and foreshank. A large portion of the bone could not be identified beyond medium mammal. This material included many unidentified element fragments including several longbone fragments. Some of the longbone fragments were actually steaks or ring bones varying in thickness from 5/8 inch to ¾ inch. These cuts were sawed. Small mammals included muskrat and rabbit (Table 2). Muskrat was indicated by an incisor and rabbit by a butchered hindlimb. Most of the bird bone was not identified by species or skeletal element. However those that could be identified included a chicken leg, a duck breastbone, and a mourning dove foot. One unidentified fish element was recovered consisting of a dorsal ray. A few small fragments of unidentified turtle carapace and plastron were also recovered. The shape of the carapace fragments suggested it belonged to a land tortoise. Bone modifications

included several sawed, chopped and cleaved bones, a few calcined bones and a small number of weathered specimens. While some of the bone clearly constituted dietary refuse the majority of the remains was processing waste.

b. South Yard

The South Yard yielded very little faunal refuse. Most of the bone consisted of pig and cattle though a snapping turtle was also present (Table 1). Pig was represented by a skull and mandible along with several loose teeth. Based on dental eruption patterns at least three individuals are represented aged at minus one year, 1 ¼ years, and 1 ½ years or more at death. One picnic ham was present. Cattle consisted of a small number of meat cuts from the neck, short rib, arm and foreshank. The presence of medium mammal longbones indicated at least one other upper forearm cuts was also present. Snapping turtle was indicated by a partial upper forearm element. This material was a mix of dietary refuse and processing refuse.

c. East Yard

The East Yard yielded the smallest amount of bone. It consisted of mammal and bird remains. Identified species included cattle, pig and mouse (Table 1). Cattle was represented by the hinge of a mandible. Pig was the most abundant species. It was indicated by loose teeth and a maxillary fragment. Based on dental eruption patterns at least two individuals were present: both aged at about 1 year at death. Mouse consisted of a mandible. Bird was not identified by species. It was represented by a longbone fragment and two other unidentified fragments. A few pieces were burned, another was chopped. This material was composed of processing waste.

d. West Yard

The West Yard yielded the largest and most diversified faunal sample consisting of mammal, bird, fish, reptile, and amphibian species (Table 1). Identified mammal species included pig, cattle, horse, cat, dog, black rat, mouse, muskrat, opossum, rabbit, raccoon, squirrel, and woodchuck. Pig was the most abundant of all identified species. It was composed of processing waste and dietary refuse. Processing waste included skull, mandible and several teeth. There was a minimum number of three individuals ranging in age from ¾ year to 1 ½ years at death. At least one of these was a male aged at more than ¾ year at death. Dietary refuse included hams from the Boston butt, picnic ham, butt ham and shank ham. A small number of trotters were also present. Cattle remains included processing waste and dietary refuse. Processing waste consisted of a skull, horncore and loose teeth. There were at least two individuals indicated: one was 2 ¼ years or more at death, while the other was a juvenile based on the appearance of a horncore. Dietary refuse consisted of beef cuts that included stews from the chuck and hindshank, roasts from the arm, sirloin and rump, and steaks from the loin and chuck. Horse was indicated by a single incisor from an old individual. A fair number of medium and large mammal specimens were present. These included skull, mandible, rib, and longbone fragments. One longbone shaft in particular was of interest. It may be a butchered deer femur though

it is too fragmented to be certain. Many of the larger mammal remains exhibited butcher marks, either chop or saw marks, a few fragments bore canine or rodent gnaw marks and a few others were burned.

There was a great range of small mammals some of which were probably intrusive to the deposits while others may have been vermin disposed of by site residents (Table 2). Cat and dog consisted of a single element each, an upper forearm and a molar respectively. Black rat, mouse, muskrat, opossum, rabbit, raccoon, squirrel and woodchuck were represented by skull, mandible and long bone fragments. None of the small mammal bones exhibited butcher marks. One specimen showed signs of heat exposure while another exhibited canine gnaw marks. The large number of small mammals suggested they were deliberately hunted or trapped. Had more of these specimens exhibited gnaw marks it might have been possible to attribute their capture to dogs or cats. But they did not and so it is only possible to speculate as to what agent was responsible for their presence in the deposits.

Identified bird species included chicken, duck and goose. Each of these was represented by a minimum of one individual and consisted of wing and breast elements. A fair number of unidentified bird specimens were also present. These consisted primarily of longbone fragments; only two vertebra and three phalanges were present. The longbone fragments were extremely fragmented which resulted in a poor rate of species identification. However, some of these longbone fragments contained medullary bone indicating the presence of egg-laying hens. Most of the bird bone did not exhibit clear modifications though the high fragmentation rate suggested cracking as a result of being gnawed. A few bones however were burned.

A small number of fish bones were recovered most of which were catfish consisting of skull fragments. A fair number of turtle carapace, plastron and longbone fragments were identified most of which could not be assigned to a specific species. One hip element was identified as snapping turtle. This specimen exhibited slice marks. Two other species were tentatively suggested based on a humerus possibly from a diamondback turtle and three carapace fragments possibly from a land tortoise. At least one plastron fragment was chopped and four other specimens were slightly burned. Toad was indicated by a lower forearm.

The faunal remains from this analytical unit were complex. They were composed mainly of dietary refuse and processing waste from pig and cattle. To a lesser extent they included wild species exploited as food, as well as intrusive and commensal species.

e. House

The House deposits were similar to those in the West Yard area. There was much overlap in terms of the range of identified species, the prevalence of pig, and the variety of pork meat cuts. Identified species included pig, cattle, sheep, horse, mouse, muskrat, rabbit, squirrel, chicken, catfish and snapping turtle (Table 1). Pig was the most abundant species. It consisted of processing waste and dietary refuse. Processing waste included

skulls, mandibles, and several loose teeth. There was a minimum of four individuals represented ranging in age from less than ¾ year to 1 ½ years. Two were males, a third was female, and all three were aged at more than one year at death. The presence of chop marks on one of the mandibles indicated processing for muscle tissues. Dietary refuse included a limited range of meat cuts. Most of these cuts were butt and shank hams though there was also a smaller number of Boston butt and picnic hams, and a few trotters and ham hocks. Cattle was the second most abundant species. It was represented by a stew meat from the hind shank, and a number of steaks from the loin, rib, arm, and round. In addition there was a hoof that exhibited heavy canine gnaw marks. Sheep was identified based on a single shed upper incisor aged at 1 ¾ years. Horse was indicated by an extremely worn incisor. Medium mammal bone included skull, rib and longbone fragments. A few of these exhibited saw marks, gnaw marks and were burned. Large mammal fragments included a few rib and longbone fragments one of which was rodent gnawed.

All of the smaller mammals were indicated by very low numbers of elements representing a minimum of one individual each (Table 2). Mouse consisted of a mandible, muskrat of two teeth and an upper forearm, and rabbit of an upper forearm and a lower hindleg. None of these elements exhibited butcher marks. With the exception of a muskrat humerus which showed signs of heat exposure, none of these specimens were modified. There was a number of small mammal bones that were probably associated with some of these small mammals. They included skull, longbone and foot elements. No vertebral bone was present.

Chicken was the only identified bird species. It consisted of at least two individuals represented by wing and breast elements. Several unidentified bird longbone fragments were also present some of which were burned. One specimen came from an immature individual.

Catfish was the only identified fish species based on a skull element. At least one other species was present based on a few more skull fragments. Snapping turtle was identified by a carapace fragment. Another species of turtle was suggested by shoulder element, possibly Blanding's turtle. Several unidentified turtle carapace and plastron fragments were present though they were too small in size to identify by species.

This analytical unit was composed of dietary refuse, processing waste, and intrusive species.

4. Discussion

In this discussion all of the faunal remains were combined into a single unit of consideration. The differences in distribution were not especially notable except that the densities most likely relate to household garbage disposal practices. There were no real differences in the distributions of dietary refuse versus processing waste. Futhermore no butchering waste was observed at the site. To a greater or lesser degree they contained similar types of refuse, primarily processing waste and dietary refuse.

The presence of a large number of rodents in the West Yard and House analytical units is more likely related to scavenging and pest disposal than deliberate hunting or trapping for consumption purposes. Though dog and cat remains were virtually absent from the deposits their presence was observed through gnaw marks on some of the bones. As household related members, they may have been buried when they died as opposed to discarded in middens. Two other species were notable for their absence. Sheep appeared in one deposit only and consisted of a single incisor. It is possible however that some of the medium mammal longbones may have been sheep. Horse was indicated by two extremely worn incisors. These may represent shed teeth. Horses were an essential part of rural farmstead life throughout the nineteenth and early twentieth centuries. The lack of horse bone is due to differential disposal of their remains. Ageing animals may have been sold for hides.

Pig and cattle were the two most abundant species recovered at the site. Cattle remains were limited in terms of body part distributions. Table 3 summarizes pig refuse types and the range of meat cuts indicated. Loose teeth were not included in these totals. Processed waste included the skull and mandible. The brains, tongue and facial muscles were used in variety of dishes. Most of the dietary refuse consisted of hams, especially the shank ham. Stew meats in the form of ham hocks and trotters were common as well. Dietary refuse was more abundant than processed waste. Still all of these remains represent food remains, the only difference being that one represents table scraps and the other food preparation waste. It is noteworthy that no vertebrae were recovered at all. The lack of vertebral remains and the predominance of one part of the body over all others suggested that pork cuts were purchased. Age at death data indicated that neonates and juveniles were absent in the assemblage which further suggests that pigs were not raised at this location. If pigs were raised and slaughtered elsewhere at the site there should have been a greater distribution of skeletal elements.

Table 4 summarizes refuse types and meat cuts for cattle. Processed waste included the head and mandible. The organs and facial tissues would have been used in various dishes. The feet probably represent trimming waste or were given to the dogs. One hoof exhibited severe canine gnawing. Beef cuts included stews, grinding meats, roasts and steaks. Large cuts of meat were far more common than steaks. Though a variety of cuts was represented they were generally infrequent with the exception of stew cuts. As was the case with pig, many parts of the skeleton or body were not present such as the spinal column and the upper hindleg. This distribution suggests that meat cuts were purchased.

It is difficult to assess the importance of birds in the diet. The high fragmentation rate negatively affected the identification of bird bone by species or skeletal element. Chicken was the most common species represented: It was represented by a limited range of body parts as were all other identified bird remains. Generally the densest bones survived, thus skewing the distribution of body parts. On the surface it would appear birds were not slaughtered at the site because heads and feet were generally absent. However the presence of medullary bone signals the presence of egg-laying hens which suggests they were raised on site. Fish and reptile were consumed. The presence of fish is an indication of consumption while butchered turtle bone is evidence of butchering.

Dietary patterns were based in large part on the consumption of pork and beef products. Birds, fish and turtles added variety to the diet. It is possible some of the smaller mammals, especially muskrat and rabbit, were also consumed. Meat cuts were generally large joints of meat that would have been easy to prepare and would have served several people. Many of the hams probably represent preserved meats: pickled, smoked or cured.

As was expected the diet was primarily based on domesticated livestock. The great diversity of wild mammal, bird, fish and reptile species indicates that exploitation of locally available resources contributed to the diet as well, though it is unclear to what extent. The faunal assemblage presents a picture of lower class dietary traditions.

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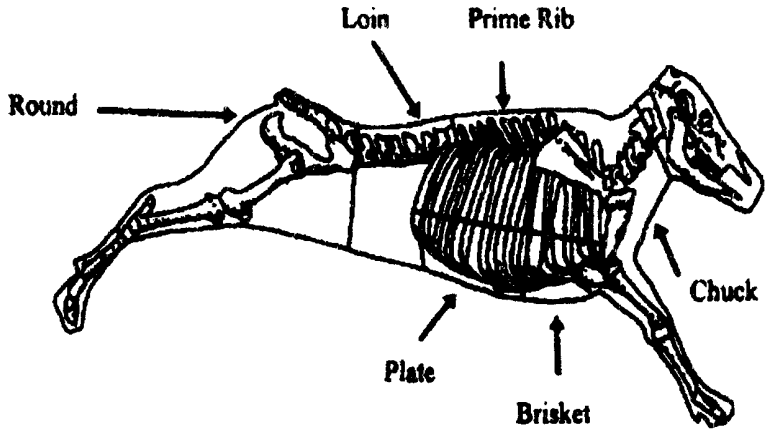
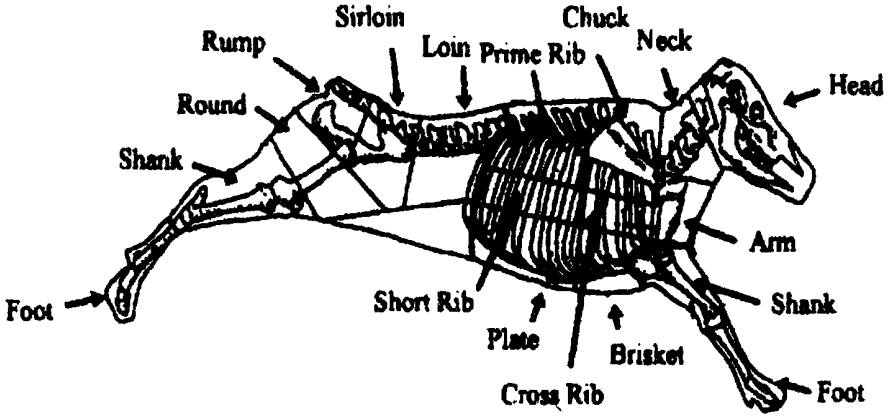
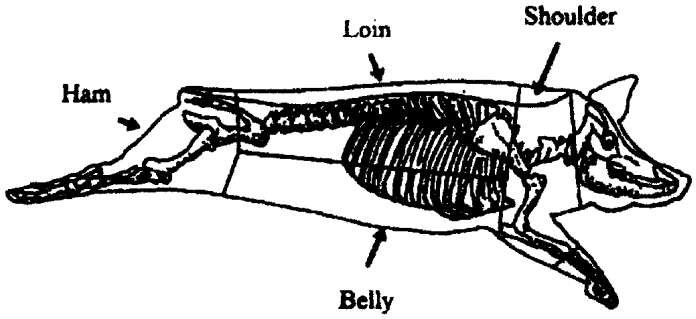



Butcher Cuts

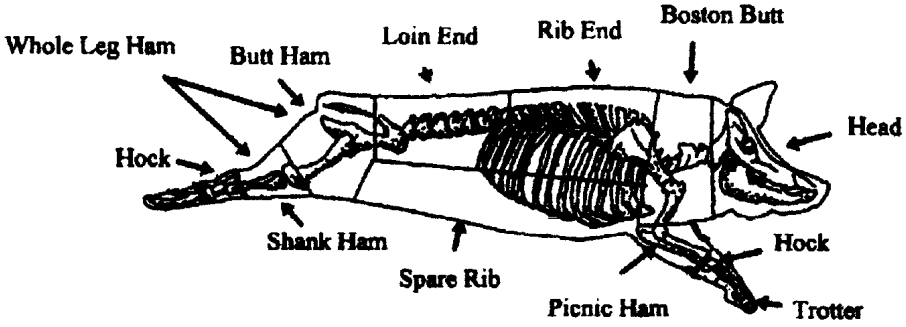



Meat Cuts

Figure 1. Cattle/Beef Secondary Butcher Cuts and Primary Meat Cuts.




Butcher Cuts




Meat Cuts

Figure 2. Pig/Pork Secondary Butcher Cuts and Primary Meat Cuts.

Table 1. Faunal Summary by Analytical Unit, by Class, Species and Size-Range Category, and by Total Number of bone Fragments (TNF) and Minimum Number of bone Units (MNU).

| Class/Species/Size-Range Category | North Yard | | South Yard | | East Yard | | West Yard | | House | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TNF | MNU | TNF | MNU | TNF | MNU | TNF | MNU | TNF | MNU |
| Mammal | | | | | | | | | | |
| Black Rat | - | - | - | - | - | - | 15 | 13 | - | - |
| Cat | - | - | - | - | - | - | 1 | 1 | - | - |
| Cattle | 12 | 7 | 5 | 3 | 4 | 1 | 31 | 20 | 12 | 8 |
| Dog | - | - | - | - | - | - | 1 | 1 | - | - |
| Horse | - | - | - | - | - | - | 2 | 1 | 1 | 1 |
| Pig | 42 | 27 | 38 | 9 | 6 | 4 | 100 | 68 | 93 | 65 |
| Mouse | - | - | - | - | 1 | 1 | 3 | 3 | 1 | 1 |
| Muskrat | 1 | 1 | - | - | - | - | 28 | 18 | 4 | 3 |
| Opossum | - | - | - | - | - | - | 9 | 4 | - | - |
| Rabbit | 2 | 2 | - | - | - | - | 41 | 19 | 3 | 3 |
| Raccoon | - | - | - | - | - | - | 5 | 3 | - | - |
| Rodent | - | - | - | - | 1 | 1 | 4 | 3 | 1 | 1 |
| Sheep | - | - | - | - | - | - | - | - | 1 | 1 |
| Squirrel | - | - | - | - | - | - | 7 | 6 | - | - |
| Woodchuck | - | - | - | - | - | - | 5 | 2 | - | - |
| Small Mammal | 1 | 1 | - | - | - | - | 48 | 24 | 7 | 5 |
| Medium Mammal | 61 | 3 | 6 | 1 | - | - | 161 | 14 | 88 | 6 |
| Large Mammal | - | - | - | - | - | - | 28 | 1 | 9 | 1 |
| *Subtotal TNF/MNU* | *119* | *41* | *49* | *13* | *20* | *7* | *489* | *201* | *220* | *95* |
| Bird | | | | | | | | | | |
| Chicken | 1 | 1 | - | - | - | - | 4 | 4 | 4 | 4 |
| Duck | 1 | 1 | - | - | - | - | 7 | 5 | - | - |
| Goose | - | - | - | - | - | - | 1 | 1 | - | - |
| Mourning Dove | 1 | 1 | - | - | - | - | - | - | - | - |
| Unidentified Bird | 12 | 1 | - | - | 3 | - | 97 | 27 | 17 | 2 |
| *Subtotal TNF/MNU* | *15* | *4* | - | - | *3* | - | *109* | *37* | *21* | *6* |
| Fish | | | | | | | | | | |
| Catfish | - | - | - | - | - | - | 4 | 4 | 2 | 2 |
| Unidentified Fish | 1 | 1 | - | - | - | - | 2 | 2 | 3 | 3 |
| *Subtotal TNF/MNU* | *1* | *1* | - | - | - | - | *6* | *6* | *5* | *5* |
| Reptile | | | | | | | | | | |
| Snapping Turtle | - | - | 1 | 1 | - | - | 1 | 1 | 1 | 1 |
| Unidentified Turtle | 7 | 7 | - | - | - | - | 55 | 16 | 12 | 6 |
| *Subtotal TNF/MNU* | *7* | *7* | *1* | *1* | - | - | *56* | *17* | *13* | *7* |
| Amphibian | | | | | | | | | | |
| Toad | - | - | - | - | - | - | 1 | 1 | - | - |
| *Subtotal TNF/MNU* | - | - | - | - | - | - | *1* | *1* | - | - |
| TOTAL TNF/MNU | 142 | 53 | 50 | 14 | 23 | 7 | 665 | 262 | 255 | 113 |

Table 2. Small Mammal, Bird, Reptile and Fish Minimum Number of Individuals by Analytical Unit (AU).

| Class/Species | North Yard | South Yard | East Yard | West Yard | House |
|---|---|---|---|---|---|
| Mammal | | | | | |
| Black Rat | - | - | - | 2 | - |
| Cat | - | - | - | 1 | - |
| Dog | - | - | - | 1 | - |
| Mouse | - | - | 1 | 1 | 1 |
| Muskrat | 1 | - | - | 4 | 1 |
| Opossum | - | - | - | 1 | - |
| Rabbit | 1 | - | - | 2 | 1 |
| Raccoon | - | - | - | 1 | - |
| Squirrel | - | - | - | 2 | - |
| Woodchuck | - | - | - | 1 | - |
| *Subtotal TNF/MNU* | *2* | - | *1* | *16* | *3* |
| Bird | | | | | |
| Chicken | 1 | - | - | 1 | 2 |
| Duck | 1 | - | - | 1 | |
| Goose | - | - | - | 1 | |
| Mourning Dove | 1 | - | - | - | - |
| Unidentified Bird | - | - | 1 | 1 | 1 |
| *Subtotal TNF/MNU* | *3* | - | *1* | *4* | *3* |
| Fish | | | | | |
| Catfish | - | - | - | 1 | 1 |
| Unidentified Fish | - | - | - | 1 | 1 |
| *Subtotal TNF/MNU* | - | - | - | *2* | *2* |
| Reptile | | | | | |
| Snapping Turtle | - | - | - | 1 | 1 |
| Unidentified Turtle | 1 | 1 | - | 2 | 1 |
| *Subtotal TNF/MNU* | *1* | *1* | - | *3* | *2* |
| TOTAL TNF/MNU | 6 | 1 | 2 | 25 | 10 |

Table 3. Pig Refuse Types and Meat Cuts.

| Refuse Type | Meat Cut | Cut Type | Count |
|---|---|---|---|
| Dietary Refuse | | | |
| | Boston butt | Ham | 5 |
| | Picnic ham | Ham | 6 |
| | Ham hock | Stew | 5 |
| | Trotter | Stew | 5 |
| | Butt ham | Ham | 1 |
| | Shank ham | Ham | 12 |
| | | *Subtotal* | *34* |
| Processing Waste | | | |
| | Head | Organ meat, sausage | 6 |
| | Mandible | Organ meat, sausage | 6 |
| | | *Subtotal* | *12* |
| TOTAL | | | 46 |

Table 4. Cattle Refuse Types and Meat Cuts.

| Refuse Type | Meat Cut | Cut Type | Count |
|---|---|---|---|
| Dietary Refuse | | | |
| | Neck | Ground, stew | 1 |
| | Chuck | Roast/Stew | 3 |
| | | Steak | 1 |
| | Arm | Roast/Stew | 2 |
| | | Steak | 1 |
| | Rib | Steak | 1 |
| | Short Rib | Stew | 2 |
| | Loin | Steak | 3 |
| | Sirloin | Roast | 1 |
| | Rump | Roast | 1 |
| | Round | Steak | 1 |
| | Shank | Stew | 6 |
| | | *Subtotal* | *23* |
| Processing Waste | | | |
| | Head | Organ meat, sausage | 3 |
| | Mandible | Organ meat, sausage | 2 |
| | | *Subtotal* | *5* |
| Trimming Waste | | | |
| | Foot | | 2 |
| | | *Subtotal* | *2* |
| TOTAL | | | 30 |