Volusia County
FLORIDA

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MOSQUITO CONTROL OPEN-CHANNEL CANALS
FY 2024-25 WORK PLAN

Purpose:

This fiscal year Volusia County Mosquito Control allocates $800,000.00 towards the maintenance of their open-channel canals within the East Volusia Mosquito Control District. Given that Mosquito Control's primary function is to provide for Public Health by conducting an Integrated Pest Management Program, they do not have the heavy equipment or staff necessary to perform maintenance operations within these large open-channel canals. Therefore, Mosquito Control delegates maintenance responsibilities for these canals to the Volusia County Drainage Task Team, which already performs similar tasks throughout Volusia County as part of their regular maintenance of the County's stormwater systems. Routine maintenance by drainage crews aids in maintaining flow velocity in the canals which contributes to source reduction of mosquito breeding.

The purpose of this Yearly Work Plan is to define the tasks associated with properly maintaining the canals, describe the level of service provided and to identify how Mosquito Control's funds are allocated to each task.

Tasks:

The Volusia County Drainage Task Team (DTT) maintains approximately **137 miles of open-channel canals** and their associated Rights-of-Ways (ROWs) on behalf of Mosquito Control (MC). DTT utilizes two separate crews, each with a Supervisor 3 managing their operations and task assignments. One crew, consisting primarily of Chemical Spray Technicians, is responsible for vegetative control spraying within the open channels and ROWs. The other crew is tasked with mowing the ROWs, repairing erosion issues, and cleaning the canals to ensure they are flowing properly. The primary tasks associated with maintaining the canals and ROWs are as follows:

1. Ditch Inspection/Survey (Task # 2000):
   The Ditch Inspection/Survey task consists of work associated with inspecting the MC open-channel canals to ensure proper functionality. It also includes the removal of minor obstructions as needed to maintain proper flow. Typically, this work is performed after significant rain events, prior to large storm events or as a result of a citizen request. The Unit of Measure (UOM) for this task is ditch miles (DMI).

2. ROW Spraying (Task # 2202):
   The ROW Spraying task consists of work associated with chemical spraying of canal ROWs to control vegetation and broadleaf weeds. Typically, this work is performed to reduce the

amount of mechanical maintenance needed or to reach areas where mechanical maintenance is difficult due to lack of access. The Unit of Measure (UOM) for this task is acres (AC).

3. Ditch Clean – Hand (Task # 2302):
   The Ditch Clean - Hand task consists of work associated with the hand cleaning of ditches and canals to facilitate drainage and to allow for access. Typically, this work is done by request based on inspections. The Unit of Measure (UOM) for this task is linear feet (LF).

4. Ditch Clean/Mechanical No Haul (Task # 2311):
   The Ditch Clean/Mechanical No Haul task consists of work associated with the cleaning of canals with equipment such as excavators and Gradalls. The material excavated from the canal is not removed and is distributed within the canal ROW. Typically, this work is performed in areas where access to the canal with dump trucks is prohibitive. The Unit of Measure (UOM) for this task is linear feet (LF).

5. Ditch Clean/Mechanical Haul (Task # 2312):
   The Ditch Clean/Mechanical Haul task consists of work associated with the cleaning of canals with equipment such as excavators and Gradalls. The material excavated from the canal is removed and taken to an appropriate dump site. Hauling is generally required due to a limited amount ROW area available to spread the excavated material. Typically, this is the primary task used to clean the MC open-channel canals. The Unit of Measure (UOM) for this task is linear feet (LF).

6. Chemical Ditch Maintenance (Task # 2313):
   The Chemical Ditch Maintenance task consists of work associated with the chemical treatment of undesirable and invasive vegetation in the canals. This work is performed to reduce the amount of vegetation in the flowline, thereby maximizing the volume capacity of the canal and reducing the mosquito breeding habitat. This task also reduces the amount of mechanical maintenance required within the canal. The Unit of Measure (UOM) for this task is acres (AC).

7. ROW Mowing Flat (Task # 2315):
   The ROW Mowing Flat task consists of work associated with the mowing of the canal ROWs using large tractors with attached mowers. This work is performed on the areas outside the top of canals to allow for access by the maintenance crews. The Unit of Measure (UOM) for this task is linear feet (LF).

8. ROW Mowing Slope (Task # 2316):
   The ROW Mowing Slope task consists of work associated with the mowing of the canal banks using a large tractor with an attached slope mowing unit. This work is performed on the canal banks between the flow line and top of bank that are not accessible by the flat mowers. Removal of this vegetation is necessary to maintain proper flow and to maximize the volume in the canal. The Unit of Measure (UOM) for this task is linear feet (LF).

9. Ditch Restoration/Erosion Repair (Task # 7806):
   The Ditch Restoration/Erosion Repair task consists of work associated with the repair of erosion along canal banks. This work is performed on an as needed basis. Typical erosion repairs consist of backfilling eroded areas and armoring the canal banks with a combination of sod, rubble rip-rap or concrete grout matting. The Unit of Measure (UOM) for this task is linear feet (LF).

10. Pit Operation (Task # 2309):
    The Pit Operation task consists of work associated with the moving and handling of wet material received at the pit from canal cleaning operations. Typically, material removed the canals is wet and needs to dry prior to being combined with the primary fill storage pile. The operations associated with moving the material, once it has dried, into the main storage pile are assigned to this task. The Unit of Measure (UOM) for this task is hours (HR).

11. Field Supervision (Task # 9935):
    The Field Supervision task consists of field work associated with addressing field issues, meeting with staff in the field and inspection of work performed. Field Supervision is typically a sub-task on work orders. The Unit of Measure (UOM) for this task is hours (HR).

Level of Service and Total Production:

The level of service provided and total quantity production by DTT for the MC open-channel channels is based on the following:

1. ROW Mowing:
   The planned quantity for linear feet of mowed portions of canal ROWs is based on achieving level of service of 3 times per year. Approximately 70% of the total linear feet of the canal ROWs require mowing. This translates to a total anticipated production of 1,378,000 LF of planned mowing for the canal ROWs.

2. Open –Channel Canal Cleaning:
   The primary cleaning of the canals is performed using mechanical equipment. Some portions of the canals requiring hauling and some do not. An analysis of the previous three years of production indicates DTT crews clean approximately 18% of the canals on a yearly basis. The planned yearly production for canal cleaning is 121,000 LF (22.9 miles). Of that total, 75,000 is Ditch Clean/Mechanical Haul and 46,000 is Ditch Clean/Mechanical No Haul.

3. Open-Channel Canal Restoration and Erosion Repair:
   Canal restoration and erosion repairs are typically performed on an as needed basis. DTT Supervisors identify areas in need of repair during their inspections of the canals and prioritize the repairs based on several factors. These factors would include the severity of the damage to the canal, impact to surrounding infrastructure, and potential damage to

adjacent structures. Given the volume of water flowing through the canals and tidal influences, erosion of the canal banks is a common occurrence.

4. Miscellaneous Tasks:
The total anticipated quantities for the following tasks are based on the average production from the previous 3 years. The quantity of work performed for these tasks vary year to year due to the amount of severe storm events, total rainfall received and citizen requests. The FY 24-25 planned production quantities for these tasks are as follows:

a. Ditch Inspection/Survey: 450 Ditch Miles (DMI)
b. ROW Spraying: 250 Acres (AC)
c. Ditch Clean Hand: 35,000 Linear Feet (LF)
d. Chemical Ditch Maintenance: 795,955 Linear feet (LF)
e. ROW Mowing Slope: 50,000 Linear Feet (LF)
f. Field Supervision: 300 Hours (HR)
g. Pit Operations: 600 Hours (HR

Budgeting and Allocation of Mosquito Control Funds:

Based on an anticipated annual budget of $800,000.00, the following table depicts each task associated with maintaining the open-channel canals, anticipated production quantity and the average cost per unit based on the last three years of operations.

Task	Units	Cost	Total Cost	Total Budget	% of Budget
Ditch Inspection / Survey	450	$ 52.63	$ 23,683.00	$ 800,000.00	3.0%
ROW Spraying	250	$ 84.52	$ 21,130.00	$ 800,000.00	2.6%
Ditch Clean - Hand	35000	$ 0.89	$ 31,150.00	$ 800,000.00	3.9%
Ditch Clean - Mechanical No Haul	46000	$ 2.75	$ 126,500.00	$ 800,000.00	15.8%
Ditch Clean - Mechanical Haul	75000	$ 3.08	$ 231,000.00	$ 800,000.00	28.9%
Chemical Ditch Maintenance	795955	$ 0.05	$ 39,797.75	$ 800,000.00	5.0%
ROW Mowing Flat	1378000	$ 0.10	$ 137,800.00	$ 800,000.00	17.2%
ROW Mowing Slope	50000	$ 1.87	$ 93,500.00	$ 800,000.00	11.7%
Ditch Restoration / Erosion Repair	3000	$ 8.44	$ 25,320.00	$ 800,000.00	3.2%
Field Supervision	300	$ 56.38	$ 16,914.00	$ 800,000.00	2.1%
Pit Operation	600	$ 87.83	$ 52,698.00	$ 800,000.00	6.6%
Totals			$ 799,492.75		99.9%

The tasks associated with cleaning and maintaining the open-channel canals with heavy equipment (Ditch Clean Mechanical Haul/No Haul, ROW Mowing Slope/Flat and Ditch Restoration/Erosion Repair) account for just over **76%** of the total budget allocated by Mosquito Control for canal maintenance.

Mosquito Control Source Reduction Canal Projects:

A-5 Sterthaus Pasture and Environs (4,315 linear feet)

This project area is located north of Granada Boulevard, between Orchard Street and Nova Road and extending to U.S. 1 in the city of Ormond Beach. This system consists of mosquito control drainage ditches in low hammock swampland adjacent to the salt marsh near Moose Lodge and Ormond Beach YMCA. The system requires annual maintenance.

A-6 Village of Pine Run (13,687 linear feet)

This ditch system is located near US 1 and I-95. One primary ditch runs around the perimeter of the community. This ditch system, along with side laterals, requires annual maintenance. This is a joint Road & Bridge and Mosquito Control project.

A-8 Thompson Creek Drainage Basin (3,662 linear feet)

This project area is located north of Granada Blvd. (SR 40), west of North Beach Street and extends to U.S. 1 in the City of Ormond Beach. This system of mosquito control drainage ditches and canals in low hammock swampland requires annual maintenance.

A-9 Mizner Branch Drainage Basin (20,321 linear feet; includes A-9b)

This project encompasses a mosquito control drainage system extending south of Golf Avenue, west of Derbyshire Road, east of the Daytona Pines subdivision and meandering between The Falls and Forest Hills subdivisions northward under SR 40 to the Tomoka River. The southern portion requires on-going annual maintenance. **(Cleaning Maintenance Scheduled: February 2025)**

A-9a Robert L. Strickland Rifle Range Ditch (see A-9)

This ditch system was constructed in 1972 along the western boundary of the rifle range, with outfall into the Flomich Avenue canal. It was completed northward to the residential area of Daytona Pines Mobile Home Park during FY 1977-78. This ditch system requires annual maintenance.

A-10 Riverbend Acres Subdivision (3,671 linear feet)

This ditch system is located north of the Riverbend subdivision and extends to Old Tomoka Road. It requires annual maintenance.

A-13 Tomoka Peat Bed Canal (9,036 linear feet)

This project was approved in 1967 and involves continued maintenance of an old drainage canal extending east from I-95 and crossing Old Dixie Highway south of Ormond Park. It then filters into the west edge of the Tomoka Marsh and was planned as an urban drainage canal for Halifax Plantation. This project was initiated in FY 2011-12. **(Cleaning Maintenance Scheduled: April 2025)**

A-14 Ormond Beach Airport Canals (20,638 linear feet)

This project was approved in 1976 and involves maintenance of old drainage canals constructed in the 1940's. The City of Ormond Beach Airport is the major source of water on the east side of I-95 and the Groover Branch stream picks up rural home site water on the west side of I-95. These drainage canals require on-going maintenance.

B-1 Highridge Estates (13,995 linear feet)

This ditch system is located west of I-95 on International Speedway Blvd. (W US-92) in Daytona Beach and requires on-going maintenance.

B-5 Indigo and Environs (5,019 linear feet)

The Indigo drainage system was approved in 1959. This project involves maintenance of a previously constructed mosquito control ditch. This ditch runs from US 92 parallel to Bayless Boulevard and continues through the Indigo Woods subdivision to I-95. This ditch system requires on-going maintenance.

B-7 Eleventh Street to Riviera Golf Course (6,537 linear feet)

Approved in 1960 and 1970, this project involves maintenance of previously constructed mosquito control ditches and canals in the drainage basin lying east of Nova Road northward from 11th Street in Holly Hill to Rio Way in Ormond Beach. Riviera Oaks subdivision relies on this system for drainage. These ditch systems and canals require continued annual maintenance. **(Cleaning Maintenance Scheduled: August 2025)**

B-8 Halifax Drainage Canal- Herbert St. to Rose Bay (18,003 linear feet)

Approved in 1960, this project involves maintenance of the Halifax drainage canal and adjacent mosquito control lateral ditches from Herbert Street southward to Rose Bay in Port Orange. This ditch and canal system requires continued annual maintenance. **(Cleaning Maintenance Scheduled: June 2025)**

B-9 South from Fremont Avenue between the railroad to the west and U.S. 1 to the East (2,146 linear feet)

Approved in 1960, these previously constructed mosquito control ditches are located in the City of Daytona Beach and require annual maintenance.

B-10 Eleventh Street Canal [LPGA] (5,025 linear feet)

Located west from Derbyshire Road to Williamson Blvd, the canal was approved in 1960 and constructed in 1960 and 1961. This canal requires annual maintenance.

B-11 Ditch between Clyde Morris Blvd. and Nova Road (3,714 linear feet)

This ditch is located off Madeline Avenue on the north side. It is part of the Nova Canal Drainage Basin located from Eleventh Street in Holly Hill, southward to Herbert Street in Port Orange. This ditch system requires annual maintenance.

B-12 North of Campbell Middle School between Keech Street and Lockhart Street, south of Maley Street (276 linear feet)

Approved and constructed in 1961 and 1972, these mosquito control drainage ditches require annual maintenance.

B-13 North from Jimmy Ann Drive to Flomich Avenue Canal (11th Street Cross Over Canal) (20,273 linear feet)

Approved in 1961 and completed in 1962, the 11th Street Cross Over Canal requires continued annual maintenance. Additionally, the lateral mosquito control ditches also require annual maintenance.

B-14 Fleigler Canal- Volusia Mall to I-95 (11,510 linear feet)

Maintenance of this privately constructed canal was approved in 1961. It is located west of Bill France Boulevard, north of U.S. 92, east of Highway 95 crossing Williamson Blvd. at Dunn Avenue. This canal requires annual maintenance. **(Cleaning Maintenance Scheduled: May 2025)**

B-15 Bellevue Extension (19,559 linear feet)

Located along Williamson Boulevard from Memorial Medical Parkway south to LPGA Boulevard, this ditch system requires continued annual maintenance.

B-16 Daytona Beach International Airport and Environs (14,577 linear feet)

This previously approved project involves maintenance of Old Navy Canal on and around the Daytona Beach International Airport, and an additional mosquito control ditch network directed into the canal. This ditch system and canal require annual maintenance. **(Cleaning Maintenance Scheduled: May 2025)**

B-17 Flomich Avenue Canal (10,368 linear feet)

Approved and constructed in 1962, this project involves continued annual maintenance of this mosquito control canal westward from the west end of Wright Street to I-95 west of Holly Hill.

B-18 Sixth Street Lateral (2,889 linear feet)

Approved and constructed in 1962, this project involves annual maintenance of this mosquito control canal starting on Williamson Boulevard between Mason Avenue and Bent Tree Drive running westward to I-95.

B-19 Sweetwater Branch Canal (42,833 linear feet)

Approved in 1962, work was initiated on this canal in 1967 and completed in 1972. This major drainage system on Rotaler Corporation property extends southward and generally parallel to Clyde Morris Boulevard from Daytona Beach International Airport to Spruce Creek. In addition, ten lateral ditch systems, with easements, extend across property lines to ensure drainage into the main canal from properties outside of Rotaler property. The entire drainage system requires annual maintenance. **(Cleaning Maintenance Scheduled: January 2025)**

B-21 Tomoka Farms Area (28,261 linear feet)

Approved in 1962, with additional segments approved in 1969, this project involves maintenance of the northern upper branch of Spruce Creek from Halifax Drive southward to Taylor Road in the Tomoka Farms area. Segments of other, previously constructed mosquito control ditches also require on-going annual maintenance.

B-23 Harbor Oaks and Allandale (now incorporated into Port Orange) (9,983 linear feet)

Various mosquito control ditches in this area were approved and constructed in 1963 and 1969. They are located east of Nova Road, north of Rose Bay, west of U.S. 1 and south of Fleming Avenue. These ditch systems require annual maintenance.

B-24 Reed Canal (7,934 linear feet)

Located on the south side of Reed Canal Road from Nova Road to the Halifax River in South Daytona. This canal requires annual maintenance. **(Cleaning Maintenance Scheduled: March 2025)**

B-28 Madison Heights (902 linear feet)

Approved in 1969 and partially constructed, the project area encompasses the area bounded by the ditch on the south side of 4th Street running west to the corner of Heineman Street and Madison Avenue and continuing west to Clyde Morris Boulevard. This ditch was reviewed in 2022 and found to not provide a function to mosquito control. This ditch is located in the City of Daytona Beach and the pipes and structures are being maintained by the city. The district will monitor the system over this year to ensure there is no increase in mosquito production.

B-29 Hand Avenue in Ormond Beach, south to 11th Street in Holly Hill (17,529 feet linear feet)

Approved in 1969, this project area includes the old north-south Halifax drainage canal immediately west of the F.E.C. railroad in the drainage basin described. This includes the ditch formerly known as B-29A. This canal and other mosquito control ditches directed into this outfall canal require annual maintenance. **(Cleaning Maintenance Scheduled: February 2025)**

B-30 LPGA Canal (8,838 linear feet)

This canal is located on the south side of LPGA Boulevard running from Nova Road to the Halifax River and requires annual maintenance. **(Cleaning Maintenance Scheduled: July 2025)**

C-3 Various Sub-Projects in the area north of SR44 to Spruce Creek and west of Turnbull Bay to the vicinity of Sugar Mill Golf Course (40,193 linear feet – includes C-3a, b, c, d)

Approved in 1967, this project involves annual maintenance of an extensive array of mosquito control ditches previously constructed in the project area described above. **(Cleaning Maintenance Scheduled: February 2025)**

C-3a Runs from Otter Blvd., and west along powerline to Sugar Mill Drive.

C-3b Starts at Pioneer Trail, west of Williams Road and runs north to Bay Drive. Another leg begins at the end of Sugar Mill Drive and runs east to Bay Drive at Williams Road.

C-3c Starts north of Turnbull Bay, runs south across Turnbull Bay Road & across Williams Road.

C-3d Samsula School starts at the back of the school and runs south to Parsley Lane.

C-4 City of Edgewater: (55,568 linear feet – includes C4a, b, c, d, Massey Canal, Old Mission Canal)

Approved in 1960 and 1969, this project involves machine maintenance of various mosquito control ditches previously constructed in the project area within the city of Edgewater. **(Cleaning Maintenance Scheduled: Gabordy - June 2025/ Old Mission December 2025)**

C-4a Otter Drive and west of U.S. 1.

C-4b Turgot Avenue ditch south of Turgot Avenue and west of U.S. 1.

C-4c The North Old County Road ditch starts at Highland Avenue and runs south to Pine Bluff.

C-4d Edgewater Pit Drainage starts in front of Edgewater Public Works and runs north to 10th Street.

C-5 New Smyrna Beach Golf Course and Environs (16,764 linear feet)

C-5a Approved in 1960, this project involves machine maintenance of the various mosquito control ditches previously constructed on and around the New Smyrna Beach Golf Course.

C-5b Starts at Woodland Drive runs southwest to Canal Street, turns and runs by the Moose Lodge to Pioneer Trail. Ross Power Line runs between Canal Street & Wallace Rd.

C-6b South of SR44 between Glencoe Road and Mission Road west of New Smyrna Beach (8,594 linear feet) **(Cleaning Maintenance Scheduled: September 2025)**

Approved in 1960 and 1966, this project involves annual machine maintenance of various mosquito control ditches previously constructed in the project area.

Oliver Estates Drainage: runs along the south and east sides of Oliver Estates.

C-10a South from SR 44 to South Canal and east of Old Mission Road to the F.E.C. railroad in the City of New Smyrna Beach (5,254 linear feet)

Approved in 1964, this project involves continued annual maintenance of previously

constructed mosquito control ditches in the described project area.

C-11 North from SR 44 to Wayne Avenue and west of the F.E.C. Railroad to Turnbull Creek in and west of the City of New Smyrna Beach (3,882 linear feet)

Approved in 1965, this project involves continued annual maintenance of previously constructed mosquito control ditches in the described project area.

C-12a North from the New Smyrna Beach Golf Course to the Spruce Creek Bridge and west of U.S. 1 to Turnbull Bay including Islesboro and the New Smyrna Beach Airport Area (13,379 linear feet)

Previously approved as a series of sub-projects, this project involves continued maintenance of previously constructed mosquito control and airport ditches.

C-36 Samsula Canal (85,938 linear feet)

Approved in 1967, this project involves annual maintenance of selected Old Samsula Drainage District ditches and the previously constructed mosquito control ditches which have been directed into them. **(Cleaning Maintenance Scheduled: North of SR44 - March 2025/ South of SR44 October 2025)**

D-2 Oak Hill Impoundment (6,724 linear feet)

Approved in 1959, this small mosquito control impoundment requires continuing shoreline maintenance. Its location is due east of Oak Hill along the west shoreline of Mosquito Lagoon.

D-2a A small drainage ditch at the end of Bills Hill Road that runs north and south through Hall's Nursery requires continuing maintenance.

D-2b Palm Avenue and Mullet Drive, runs north 850', then turns east into mosquito control impoundment requires continuing maintenance.

D-3 North of Oak Hill to H.H. Burch Road between U.S. 1 and Mosquito Lagoon (13,564 linear feet)

Approved in 1959, this project involves continued maintenance of previously constructed mosquito control ditches in the described project area:

D-3a Brooks Circle: runs south then westward, then north back across Brooks Circle turning east across US 1 to river.

D-3b Golden Bay Drainage: starts behind Flea Market and runs north through Golden Bay into D-3a.

D-3c Runs on the West side of US 1, behind the houses on Ramsgate Ct, across from H.H. Burch Road north & south about 600'.

D-5 Edgewater south to Ariel Road between the F.E.C. railroad and Mosquito Lagoon (61,664 linear feet – including D5a, b, c, d, e, f, g, h, i, j below)

Approved in 1961, this large project involves the continued maintenance of mosquito control drainage ditches through upland swales in the described project area between Edgewater and Oak Hill **(Cleaning Maintenance Scheduled: November 2025)**:

D-5a Indian Mound Ditch: starts at the corner of US 1 and Indian Creek Road and runs east 300 feet then turns south winding back to the east ending at the river.

D-5b Bissit Creek #2: starts at US1 across from Indian Creek Road and runs west then north to Libby's property.

D-5c Libby's Property Drainage: west side of US 1 across from Terra Marr.

D-5d Begins north of Roberts Road and runs south across Volco Road and Clinton Cemetery Road to Libby's property.

D-5e Jones Fish Camp Rd: north side of Jones Fish Camp Road and east of US 1 runs east then north and south.

D-5f C-Way Ditch: between C-Way and Boston Whaler runs east to river.

D-5g Eastwind Drainage: runs south of Eastwind Estates to Libby's property, with a lateral starting just north of Clinton Cemetery Road and east of main ditch going south into main ditch before Libby's property.

D-5h Roberts Road Canal: starts at Roberts Road next to F.E.C.R.R. runs south to Volco Road.

D-5i 27th Street Drainage: North 27th Street, south Florida Shores, west of US 1.

D-5j Silver Circle Canal: at the main entrance to Silver Circle Estates running north and south.

D-6 Roadside Ditches – Southeast Volusia (24,312 linear feet)

Includes continued annual maintenance of roadside ditches that run along Reed Grove Road, Stacy Grove Road County Line Ditch Road **(Cleaning Maintenance Scheduled: January 2025)** and County Line Road.

D-7 Town of Oak Hill (52,405 – linear feet – includes D7a, b, c, d, e, f, g below)

Includes continued annual maintenance of roadside ditches in Oak Hill:

D-7a Bills Hill Canal: crosses US 1 running east parallel to Bills Hill Road to the river.

D-7b Major Oak Hill #1: starts north of West Halifax Avenue and west of US 1 in an orange grove running south across Church Street and ending at Bills Hill Road (D-7a).

D7c Major Oak Hill #2: starts at US 1 north of Lagoon Avenue running southeast across Lagoon Avenue then south across Gaines Street to Bills Hill Road (D-7a). Several unconnected sections of ditch and plow areas will be excavated.

D-7d Major Oak Hill Tributary: runs northeast across Brooks Circle north of Oak Hill Cemetery.

D-7e East Halifax: starts at the corner of Brooks Circle and Flamingo Avenue running south across Putnam Grove Road then turns west 800 feet.

D-7f West Halifax: starts at West Halifax Avenue running to Putnam Grove Road.

D-7g Oak Hill Cemetery Ditch: starts north of West Halifax Avenue and runs behind the Oak Hill Cemetery.

OPEN CHANEL PROJECT SUMMARY

Total linear feet = 720,056 linear feet or approximately 137 miles of machine ditches and canals

HAND DITCHES

Hand ditches may require annual maintenance. The East Volusia Mosquito Control District currently performs mechanical source reduction on most of these systems for the purpose of minimizing mosquito production habitat. The District may determine that mechanical control/maintenance of a drainage system is not an effective method for the control of mosquitoes. In these circumstances, the District will utilize the most effective and economically viable alternative solution(s) to manage mosquito populations.

POTENTIAL NRCS PROJECTS

Groover Branch Natural Stream (From Durrance Lane to Tomoka River): Natural Tributary to the Tomoka River

Spruce Creek (From Spruce Creek Road to Williamson Blvd): Natural creek surrounding the Spruce Creek Fly-In

Lake Ashby Canal (Boy Scout Camp Road to Lake Ashby): Natural canal that flows into Lake Ashby

B-19 Canal (Bridge #794072): De-silting north culvert

B-19 Canal (Dunlawton): Remove existing armoring and replace with rip rap (±300 LF)

A-10 Canal (East of Tymber Creek: Erosion protection and armoring

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County Maintenance

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