

Stormwater Study for Justification of Interim Fees

for the

Village of Palm Springs



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Proj. No. 400-064.00

Date: March 26, 2015

 **ECKLER ENGINEERING, INC.**

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Abbreviations



ABBREVIATIONS

Avg	Average
CIE	Capital Improvements Element
CIS	Capital Improvements Schedule
County	Palm Beach County
FLUM	Future Land Use Map
F.S.	Florida Statutes
GPCD	Gallons per Capita per Day
LEC	Lower East Coast Water Supply Plan
LOS	Level of Service
MFL	Minimum Flow Level
MGD	Million Gallons per Day
MGM	Million Gallons per Month
MGY	Million Gallons per Year
PBCWUD	Palm Beach County Water Utilities Department
SAS	Surficial Aquifer System
SFWMD	South Florida Water Management District
State	State of Florida
Village	Village of Palm Springs
VPSUD	Village of Palm Springs Utility Department
WTP	Water Treatment Plant
WUP	Water Use Permit
WWTP	Wastewater Treatment Plant

Introduction



SECTION 1 - INTRODUCTION

1.1 PURPOSE

The Village of Palm Springs is located within the County of Palm Beach. The Village of Palm Springs borders the municipalities of Greenacres, Lake Clarke Shores, Lake Worth, and West Palm Beach. According to the United States Census Bureau, the Village of Palm Springs has a total area of 3.5 square miles.

1.1.1 General

The Village of Palm Springs has determined that they would like to implement a Stormwater Ordinance setting an interim 3-year Stormwater Utility Fee prior to implementation of a full Stormwater Utility. The initial study will incorporate all of the single family and multi family residential units within the Village and all commercial units within the Village. The Stormwater Utility will not encompass any properties outside of the Village Limits.

The Study is divided into three sections:

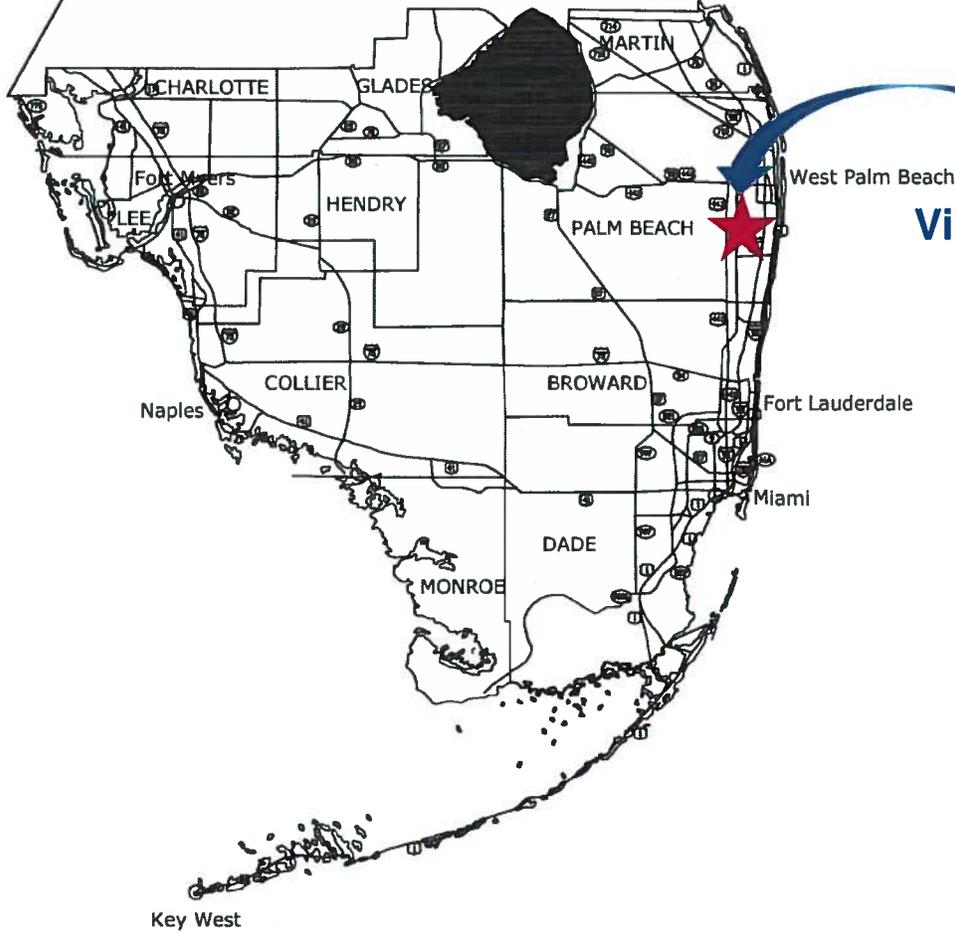
- ▶ Section 1 – Introduction
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- ▶ Section 3 – Data and Analysis

1.2 PHYSICAL LOCATION

Figure 1-1, Village of Palm Springs Location Map, shows the physical location of the Village with respect to the County of Palm Beach and the State of Florida. This map is located at the end of this section.



SCALE: N.T.S.



Village of Palm Springs



**Figure 1-1
Village of Palm Springs
Location Map**

Background Information



SECTION 2 - BACKGROUND INFORMATION

2.1 BACKGROUND INFORMATION

Included in this section is a brief overview of the municipal limits, zoning, and land use in the Village of Palm Springs. Figure 2-1, Village Limits, shows the current Village of Palm Springs limits. Figure 2-2, Zoning Map, shows the different areas the VPSUD serves inside and outside the Village of Palm Springs municipal limits. These two (2) figures are located at the end of this section. Furthermore, this section illustrates rules and regulations that encourage the Village of Palm Springs to administer a stormwater utility fee which will fund drainage improvements keeping the Village in compliance with the NPDES permit.

2.2 RULE AND REGULATIONS

Stormwater runoff consists of generally polluted water commonly transported through Municipal Separate Storm Sewer Systems (MS4s), from which it is often discharged untreated into local streams, canals and lakes. To prevent harmful pollutants from being washed or dumped into an MS4, counties and municipalities must obtain a NPDES permit and develop a stormwater management program.

The Village of Palm Springs is a co-permittee with Palm Beach County on the NPDES Municipal Separate Storm Sewer System (MS4) permit. The MS4 Permit states that the permittees are authorized to discharge stormwater to waters of the State, in accordance with the approved Stormwater Management Programs (SWMPs). Specific regulatory requirements for the NPDES MS4 permits are set forth in Chapter 62-604, F.A.C.

Under the NPDES MS4 permit, the Village of Palm Springs must effectively inspect and maintain their stormwater infrastructure.

2.3 DRAINAGE IMPROVEMENTS

Several drainage improvements have been proposed by the Village of Palm Springs in order to maintain the stormwater infrastructure per the regulatory requirements mentioned above. The projects are as follows:

1. ***Faith Presbyterian Church:*** Install three (3) catch basins and connect them to the drainage swale on the east side of the existing park on Village property located east of the Faith Presbyterian Church.

Estimated Cost: \$35,000

2. ***Miller Road and Second Avenue North Option 1:*** Install four (4) inlets along Second Avenue North interconnected with each other and including an exfiltration trench to remove runoff volume. This system will not be interconnected with any other existing drainage systems in the area.

Estimated Cost: \$44,000

SECTION 2 - BACKGROUND INFORMATION

3. **Miller Road and Second Avenue North Option 2:** Install three (3) inlets along Second Avenue North and then connect each with hard piping to a control structure and outfall structure located in the vicinity of the lake located NW of the area of the intersection of Miller Road and Second Avenue North. The entire runoff from the proposed area will discharge into the lake.

Estimated Cost: \$57,000

4. **10th Avenue North and Davis Road:** The area is located north of the intersection of LWDD Canal 11 and Davis Road, and ends at the intersection of 10th Avenue North and Davis Road. This area presents significant flooding issues during high precipitation. Runoff from adjacent streets and from Davis Road flood front yards of the residents that have properties along Davis Road. It is proposed that a drainage system be constructed along Davis Road. This system would discharge runoff from the area in question to LWDD Canal 11. The system needs to be designed having drainage inlets, intersecting manholes, hard piping, a control structure, and an outfall.

Estimated Cost: \$424,000

5. **South Military, Canal 9 Road, Kirk Road and Park Lane:** This area contains different drainage features such as storm drainage collection systems, lakes, swales, and outfalls. The streets being considered under this annual drainage maintenance program are: Canal Road 9, Vicliff Road, Dale Road, Linda Lane, Park Lane, Hillary Circle, Rachael Way, and Donald Road. The streets considered outside of this annual drainage maintenance program are: Kirk Road and South Military Trail.

Estimated Cost: \$200,000

6. **Equipment and Maintenance Costs:** The Village has developed an annual budget for maintaining the stormwater system in the near term. This budget includes compliance costs associated with the Palm Beach County Permit, catch basin cleaning, employee training, swale and ditch maintenance, and inspections. This annual cost is estimated to be \$100,000.

Estimated Cost: \$300,000 (For the three years of the interim rate)

7. **Stormwater Utility Study:** In order to implement a Stormwater Utility for the Village, a complete and thorough stormwater study must be completed to justify the fees charged based upon impervious area of the property. The cost of this study is estimated to be \$75,000.

Estimated Cost: \$75,000

The total cost associated with all of the drainage improvements mentioned above is \$1,034,000.00. The proposed interim utility fee would need to compensate for the costs associated with the new projects.

SECTION 2 - BACKGROUND INFORMATION

2.4 DATA GATHERING

Eckler Engineering contacted the Palm Beach County Property Appraiser (PAPA) to determine the number and size of residential, commercial and vacant units within the Village of Palm Springs municipal limits. PAPA had codes for nearly 54 unique codes and descriptions for each property within the Village. Please see Appendix A for a breakdown of the codes. In order to tabulate and gather the data in a more effective manner, Eckler Engineering combined some of the categories provided by PAPA into four categories. The tables below give the combined description and the quantity of units within the Village of Palm Springs.

1. **Single Family Residential (SFR):**

PAPA Classification	Number of Units
Single Family	2,510
Single Family Comm-Zoning	30
Townhouse	1,774
Zero-Lot Line	83
Total Units	4,397

Within the Village of Palm Springs there are a total of 4,397 single family residential units. The proposed utility fee would be sent to the owner of each unit.

2. **Condominiums:**

PAPA Classification	Number of Units
Condominiums	2,161
Total Units	2,161

Within the Village of Palm Springs there are a total of 2,161 condominiums. Condominiums would be treated in the same manner as single family residential units, since the proposed utility fee would be sent to the owner of the condominium.

SECTION 2 - BACKGROUND INFORMATION

3. Multi Family Units:

PAPA Classification	Number of Units
Multi Family	26
Multi Family < 10 units	393
Multi Family < 10 units Comm Zoning	5
Multi Family > 10 units Income Restricted	1
Total Units	425

Within the Village of Palm Springs, there are a total of 425 multi family properties. Multi family units would be treated in the same manner as single family residential units, since the proposed utility fee would be sent to the owner of the multi family property.

4. Commercial:

PAPA Classification	Number of Units
Auto Sales	29
Hall	3
Department Store	7
Districts	15
Drive-in Theater	1
Federal	1
Financial	11
Insurance	2
Light Mfg	2
Municipal	17
Night Clubs	2
Office One-Story Condo	75
Office Multi-Story	8
Office One-Story	26
Open Storage	2

SECTION 2 - BACKGROUND INFORMATION

PAPA Classification	Number of Units
Orphanage/Non-Profit	2
Misc. Agric	5
Pkg Lt / Mh Pk	5
Professional Office	39
Professional Office Condo	14
Private School/College	18
Public City School	5
Religious	29
Restaurant	15
Rest home	1
Service Shops	2
Service Station	12
Shopping Center Comm	10
Store/Office/Residential	9
Stores	71
Supermarket Drug Store	4
Vacant Industrial	4
Warehouse/Distr Term	17
Warehouse/Distr Term Condo	28
Total Units	503

There is a total of 503 commercial properties within the Village of Palm Springs. Fees for each of the commercial units will be billed based on the area of the property.

Aside the properties mentioned above, there are 251 vacant properties within the Village, which are comprised of parks, cemeteries, rivers, lakes, right-of-ways, vacant commercial lots, and other vacant properties. There are also 20 lots that are owned by either the Village or County.

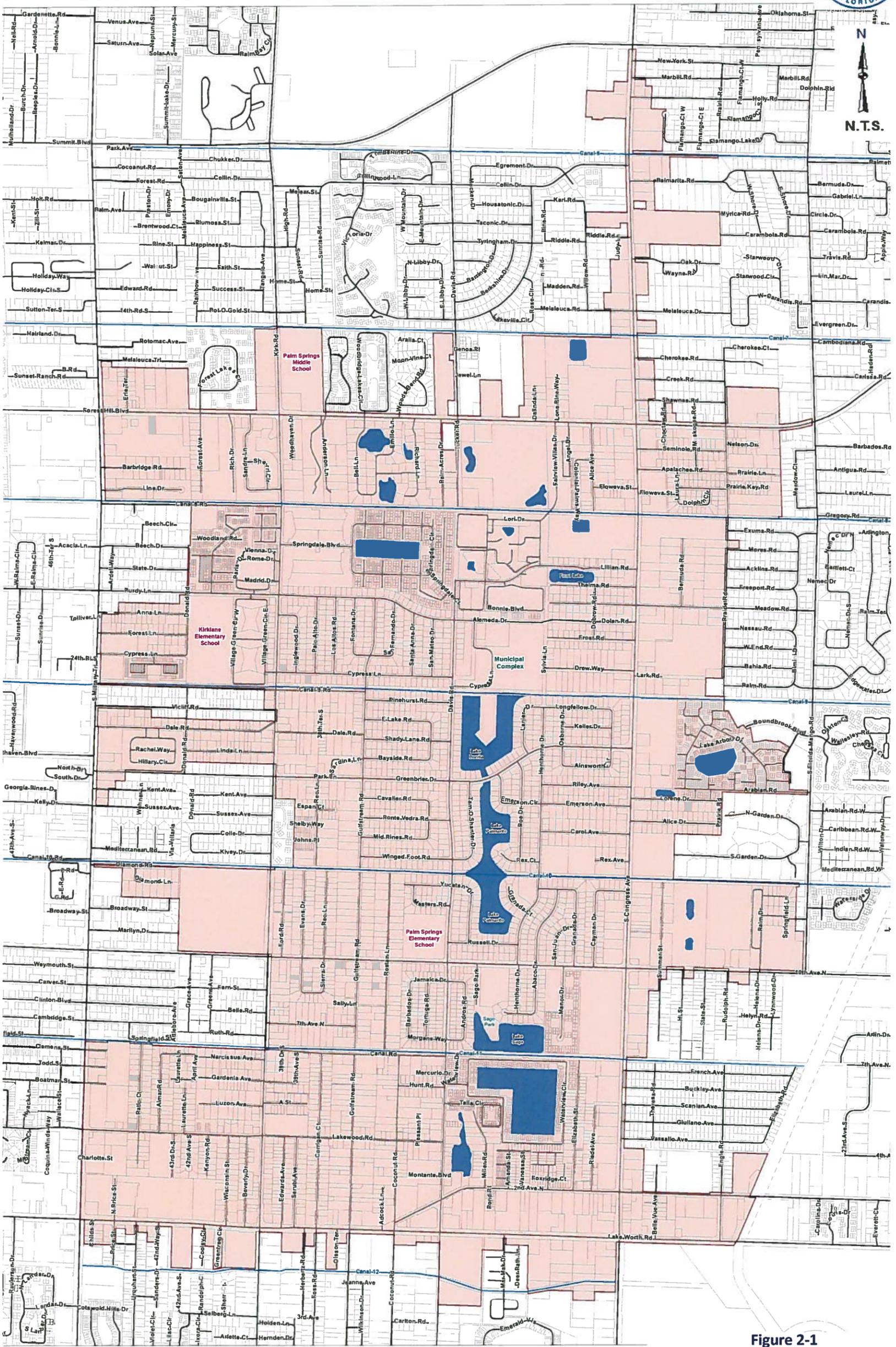
SECTION 2 - BACKGROUND INFORMATION

2.5 SUMMARY

A water utility fee will need to be imposed on the various properties within the Village in order for the municipality to facilitate drainage improvements. These improvements will help the Village abide by the NPDES Municipal Separate Storm Sewer System (MS4) permit

VILLAGE OF PALM SPRINGS

VILLAGE LIMITS



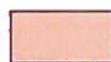
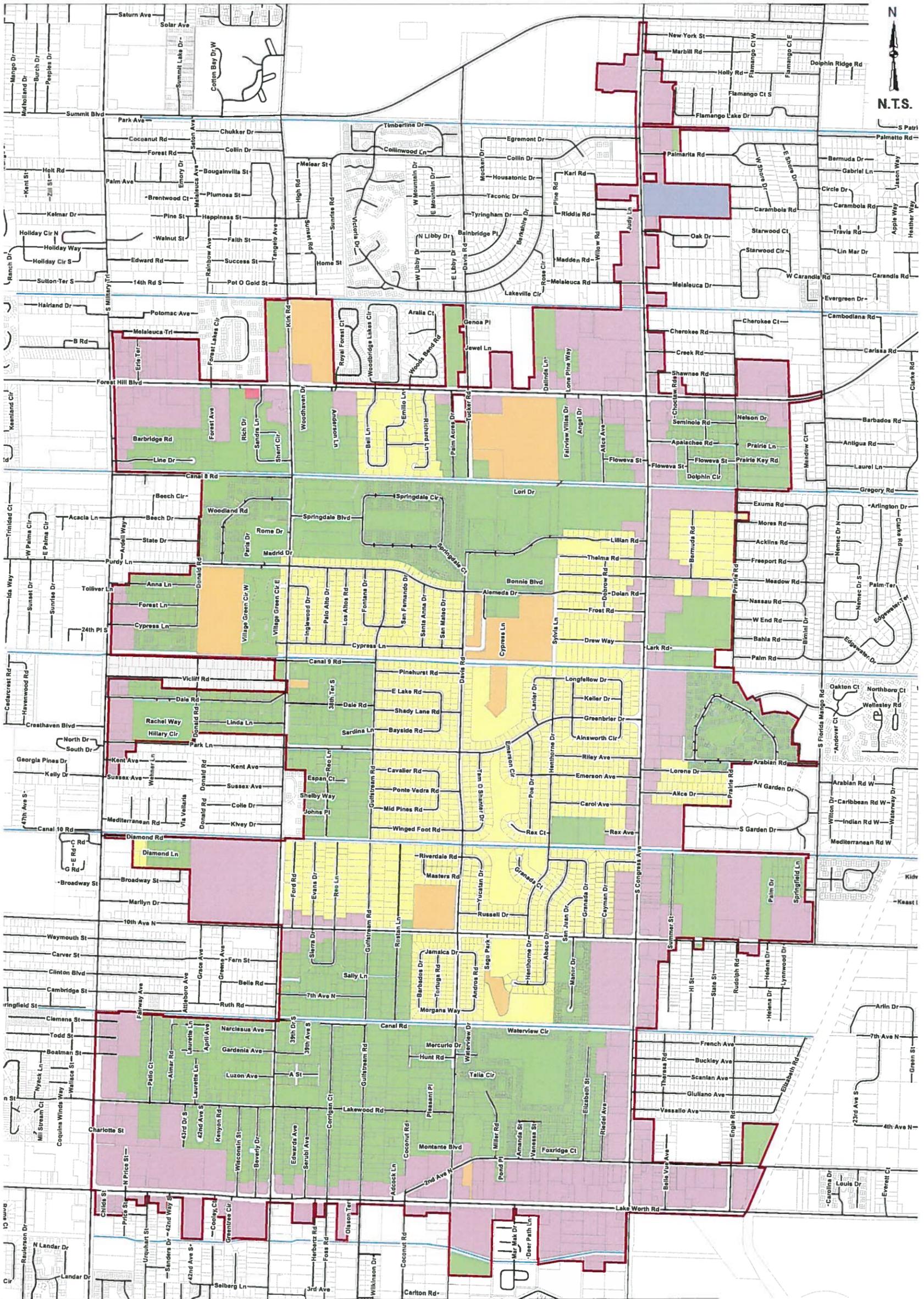
 Village Limits

Figure 2-1
Village of Palm Springs
Village Limits

 ECKLER ENGINEERING, INC.

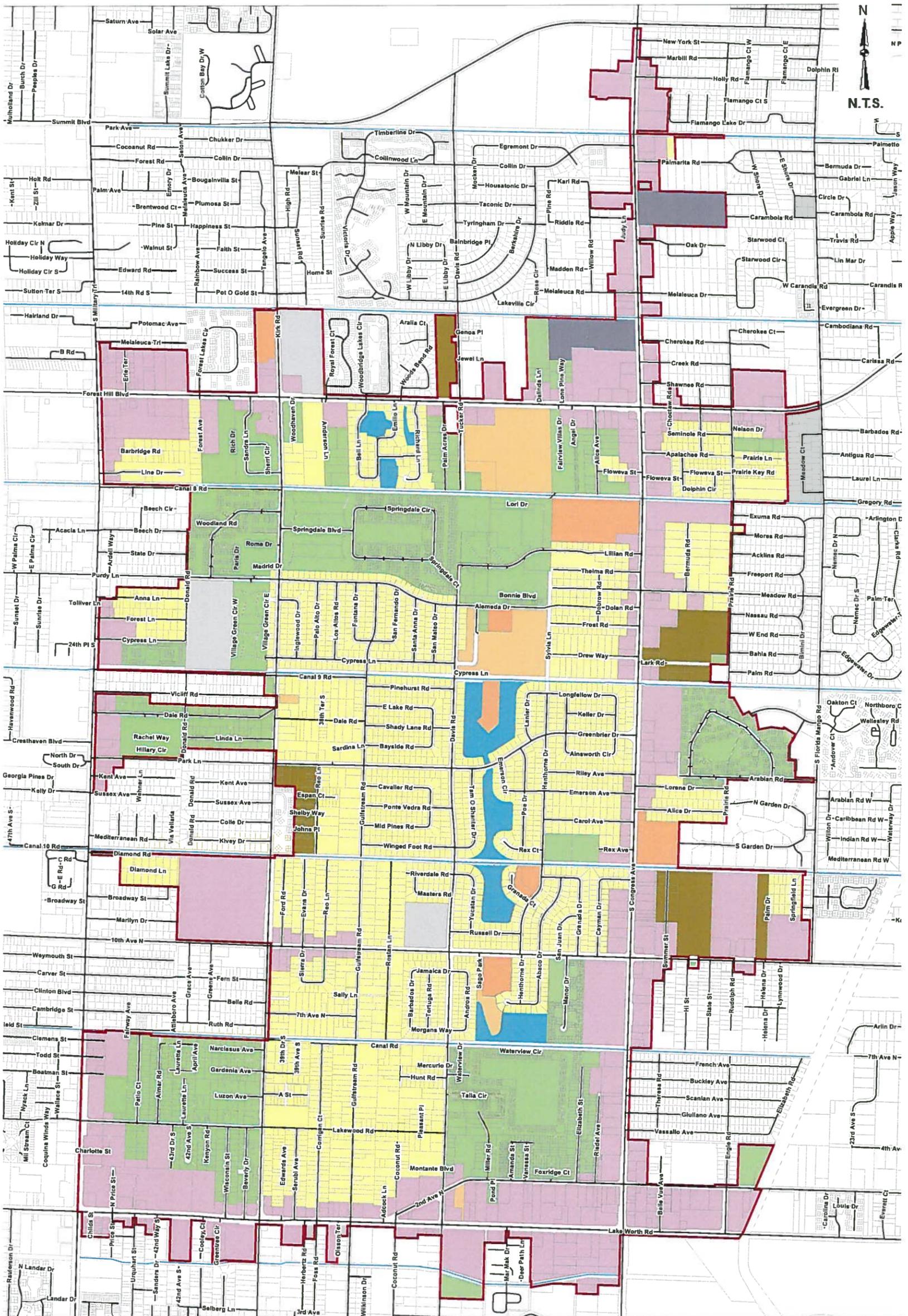
VILLAGE OF PALM SPRINGS ZONING MAP



	Village Limits		CG
	Zoning RS		CN
	Zoning RM		Governmental
			Light Industrial

Figure 2-2
Village of Palm Springs
Zoning Map

VILLAGE OF PALM SPRINGS FUTURE LAND USE MAP



- | | | |
|-----------------------------|---------------------------------|------------------|
| Village Limits | High Density | Conservation |
| Future Land Use Low Density | Commercial | Education |
| Medium Density | Other Public Facilities | Light Industrial |
| | Public Buildings and Facilities | |

Figure 2-3
Village of Palm Springs
Future Land Use

Data and Analysis



SECTION 3 - DATA AND ANALYSIS

3.1 DATA AND ANALYSIS

The intent of the data and analysis section of the report is to further analyze the data that was gathered and to determine an appropriate utility fee which will fund drainage improvements throughout the Village.

3.2 REQUIRED REVENUE

The total cost required for all of the interim period drainage improvements outlined in Section 2 is approximately \$1,034,000. A reasonable fee will be assigned to residential and commercial properties in order for the Village to raise the funds required to construct the needed improvements. Enough revenue must be generated within the first three years of billing. On an annual basis, \$375,000 of revenue must be generated to fund drainage improvements within three years.

3.3 PROPOSED STORMWATER UTILITY FEE

In general, the Village will be looking towards residential and commercial units which utilize the Village stormwater system to generate the required funds. For billing purposes, three general categories have been developed from the various residential and commercial properties. Table 3-1 shown below illustrates each category.

**Table 3-1
Single Family Residential and Condominiums**

Description	Eckler Description	No. of Units
Single Family	SFR	2,510
Single Family-Comm Zoning	SFR	30
Townhouse	SFR	1,774
Zero Lot Line	SFR	83
Condominium	SFR	2,161
Total		6,558

As shown on Table 3-1, there is a total of 6,558 single family units and condominiums within the Village of Palm Springs. Each unit will be billed on a monthly basis.

SECTION 3 - DATA AND ANALYSIS

**Table 3-2
Multi-Family Units**

Description	Eckler Description	No. of Units
Multi-Family	Bill Owner by Number of Units	1,262
Multi-Family > 10 Units Income Restricted	Bill Owner by Number of Units	270
Multi-Family < 10 Units	Bill Owner by Number of Units	1,100
Multi-Family < 10 Units - Comm Zoning	Bill Owner by Number of Units	22
Total		2,654

Table 3-2 shows that there is a total of 2,654 multifamily units within the Village of Palm Springs. The owner of each unit will be billed on a monthly basis.

**Table 3-3
Commercial Units**

Description	Eckler Description	Properties
Commercial Units	Commercial (0-1 acres)	337
	Commercial (1-10 acres)	149
	Commercial (11-25 acres)	15
Total		501

Commercial properties have the potential to generate more stormwater for the Village to handle due to their increased impervious area for large buildings and large parking areas. Commercial rates are proposed based upon the size (acreage) of the commercial property. Table 3-3 illustrates the different types of commercial properties based on area within the Village. The owner of each property will be billed. Different rates will be applied based on which of the three categories the commercial property falls in.

The following rates will be applied to each property in order to generate the appropriate funds to maintain and improve the stormwater infrastructure within the Village. The rates are reasonable and comparable to other municipalities within the South Florida region. Table 3-4 shows the rates based on the type of property.

SECTION 3 - DATA AND ANALYSIS

**Table 3-4
Proposed Stormwater Utility Fees**

Description	Monthly Rate
Single Family Residential and Condominiums	\$3.00
Multifamily Units	\$3.00
Commercial (0-1 acre)	\$5.00
Commercial (1-5 acres)	\$10.00
Commercial (5-10 acres)	\$15.00

3.4 PROJECTED REVENUE

Based on the proposed stormwater utility fee, the projected revenue would be as follows:

- Monthly Revenue: \$31,036.00
- Annual Revenue: \$372,432.00
- Triennial Revenue: \$1,117,296.00

Table 3-5 quantifies the projected revenue from each property. Essentially within 3 years the drainage improvements outlined in Section 2 can be designed and constructed using the funds generated from the proposed storm water utility fee. The Village will comfortably comply with the NPDES Municipal Separate Storm Sewer System (MS4) permit once the fees have been collected and the drainage improvements have been constructed.

Appendices



APPENDIX A

PALM BEACH COUNTY PROPERTY APPRAISER LAND USE CODES

PARCEL Record - Land Use Codes		
Code	Description	Eckler Description
0000	VACANT	VACANT
0030	VACANT ZERO LOT LINE	VACANT
0100	SINGLE FAMILY	SFR
0101	SINGLE FAMILY-COMM ZONING	SFR
0110	TOWNHOUSE	SFR
0130	ZERO LOT LINE	SFR
0300	MULTIFAMILY	Bill Owner by # of units
0305	MULTIFAMILY > 10 units Income Restricted	Bill Owner by # of units
0400	CONDOMINIUM	Bill Owner (individual) - SFR rate
0800	MULTIFAMILY < 10 UNITS	Bill Owner by # of units
0801	MULTIFAMILY < 10 UNITS-COMM ZONING	Bill Owner by # of units
1000	VACANT COMMERCIAL	VACANT
1100	STORES	COMMERCIAL (SF area of property)
1200	STORE/OFFICE/RESIDENTIAL	COMMERCIAL (SF area of property)
1300	DEPARTMENT STORE	COMMERCIAL (SF area of property)
1400	SUPERMARKET/DRUG STORE	COMMERCIAL (SF area of property)
1600	SHOPPING CENTER COMMUNITY	COMMERCIAL (SF area of property)
1700	OFFICE ONE STORY	COMMERCIAL (SF area of property)
1704	OFFICE 1 STORY CONDO	COMMERCIAL (SF area of property)
1800	OFFICE MULTISTORY	COMMERCIAL (SF area of property)
1900	PROF OFFICES	COMMERCIAL (SF area of property)
1904	PROF OFFICES CONDO	COMMERCIAL (SF area of property)
2100	RESTAURANT	COMMERCIAL (SF area of property)
2200	RESTAURANT, DRIVE IN	COMMERCIAL (SF area of property)
2300	FINANCIAL	COMMERCIAL (SF area of property)
2400	INSURANCE	COMMERCIAL (SF area of property)
2500	SERVICE SHOPS	COMMERCIAL (SF area of property)
2600	SERVICE STATION	COMMERCIAL (SF area of property)
2700	AUTO SALES	COMMERCIAL (SF area of property)
2800	PKG LT / MH PK	COMMERCIAL (SF area of property)
3100	DRV-IN THEATER	COMMERCIAL (SF area of property)
3300	NIGHT CLUBS	COMMERCIAL (SF area of property)
4000	VACANT INDUSTRIAL	COMMERCIAL (SF area of property)
4100	LIGHT MFG	COMMERCIAL (SF area of property)
4800	WAREH/DIST TERM	COMMERCIAL (SF area of property)
4804	WAREH/DIST TERM CONDO	COMMERCIAL (SF area of property)
4900	OPEN STORAGE	COMMERCIAL (SF area of property)
6900	ORN/MISC AGRI	COMMERCIAL (SF area of property)
7100	RELIGIOUS	COMMERCIAL (SF area of property)
7200	PRV SCHL/COLL	COMMERCIAL (SF area of property)
7500	ORPHNG/NON-PROF	COMMERCIAL (SF area of property)
7600	MORT/CEMETERY	VACANT
7700	CLB/LDG/UN HALL	COMMERCIAL (SF area of property)
7800	SANI/ REST HOME	COMMERCIAL (SF area of property)
8000	DISTRICTS	COMMERCIAL (SF area of property)
8200	FOREST/PK/REC	VACANT
8300	PUB CTY SCHOOL	COMMERCIAL (SF area of property)
8600	CITY INC NONMUNI	???
8800	FEDERAL	COMMERCIAL (SF area of property)
8900	MUNICIPAL	COMMERCIAL (SF area of property)
9100	UTILITY	COMMERCIAL (SF area of property)
9400	R/W - BUFFER	VACANT
9500	RIVER/LAKES	VACANT
9700	OUTDR REC/PARK LAND	VACANT