



COMMISSION FINANCE COMMITTEE
MEETING MINUTES
February 28, 2017

PRESENT: Commissioners Steve Rodriguez, Maurice Lynch, Rick Elofson, Vishnu Lakdawala, Willie Levenston and Ann Templeman.

Commissioner Rodriguez called the meeting to order at 10:30 a.m.

1. INTERNAL AUDIT REPORTS

Action: No action was required.

Brief: The Internal Auditor briefed the Finance Committee on the audit work completed to date and upcoming audits planned in Fiscal Years 2018 and 2019. The team prepared the attached business process [flow charts](#) as part of the audit.

Attachment#1: [Audit Report](#), [Flow Charts](#) and [PowerPoint Presentation](#)

2. FISCAL YEAR 2018 BUDGET

Action: No action was required.

Brief: Staff outlined key items for consideration in the upcoming budget as described in the attached presentation.

Attachment #2: [PowerPoint Presentation](#)

3. REVENUE AND FINANCIAL POLICY

Action: No action was required.

Brief: Staff briefed the Commission on the key points in both policies. Feedback is due by March 28. A final draft will be presented to the Commission on April 25 with approval anticipated at the May 23 Commission meeting.

Attachment #3: [Draft Revenue](#) and [Financial Policies](#)



COMMISSION FINANCE COMMITTEE
MEETING MINUTES
February 28, 2017


Public Comment: None

Next Finance Committee Meeting Date: March 7, 2017

Next Commission Meeting Date: March 28, 2017 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 11:45 a.m.

SUBMITTED:


Jennifer L. Cascio
Secretary

APPROVED:


Stephen Rodriguez
Committee Chair



Expertise that Works

HR Administration of Employee Health Insurance Review

Hampton Roads Sanitation District

November 22, 2016

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I. Executive Summary

Background

SC&H conducted an audit of the management procedures for the Hampton Roads Sanitation District (HRSD)'s Employee Health Insurance Program.

In calendar year 2015, HRSD Human Resources (HR) administered the active employee health insurance program for approximately 1,916 members, which includes 834 employees, with spend of \$10,162,351. In FY16, the retiree health insurance program annual expense was approximately \$2,177,782 for 151 non-Medicare retirees, including 15 dependents. The management functions administered by HRSD HR and reviewed by SC&H included new hire enrollment, annual enrollment, change of life events, HSA account set-up, retiree processing, and retiree medical coverage.

Upon beginning employment with HRSD, a new employee has 31 days from his/her new hire orientation date to enroll for medical benefits using the Employee Self-Service ERP. On an annual basis, employees may make changes to their medical benefits during open enrollment between May 1st and May 31st. The only other opportunity during the year for an employee to change his/her health benefit elections is an approved change of life event. Change of life events include, marriage, divorce, birth, adoption, gain or loss in coverage, spouse's open enrollment, or aging of a dependent. Generally, change of life events need to be communicated to HR within 31 days of the event and supported by official documentation. Exceptions to this timeframe are allowed in the event of extenuating circumstances, such as pending court paperwork to support the event.

HRSD is self-insured and assumes the financial risk of providing health benefits to participating employees. HRSD has contracted with Cigna, a third-party health insurance carrier, to administer claims. HRSD does not charge or collect a premium from participating employees. In the event an employee experiences a medical need, the employee is responsible for the assigned deductible amount each plan year. Any medical expense in excess of the employee deductible is paid fully by HRSD excluding prescription co-pays. As part of the self-insurance structure, HRSD has limited its liability via stop-loss insurance of \$250,000. If in any plan year an employee experiences medical expenses exceeding \$250,000, HRSD is insured by Symetra, a third-party provider, to cover the amount in excess of the limit.

The retiree health insurance program is administered and governed in accordance with the Retiree Health Plan Trust. Retirees are eligible to participate in this plan until they reach the age in which he/she qualifies for Medicare coverage. At this point, the retirees can elect to have a retiree Medicare Supplement plan.

There are two deductible rate plans: wellness and non-wellness. The wellness deductible rate is obtained by meeting wellness program participation requirements established by HRSD through Optima Health, a third-party provider. Optima Health obtains wellness documentation from employees to confirm participation and eligibility for a reduced deductible.

Additionally, HRSD offers a three-tiered cash incentive plan as part of the wellness program. Optima Health evaluates whether employees have met the additional requirements for the cash health incentive payments. On an annual basis Optima Health provides HRSD with listing of employees who have qualified for the wellness deductible rate and/or the cash incentive payments.

Objectives

The following audit objectives were established by SC&H based upon the understanding gained during the audit planning procedures.

- A. Identify and document key management procedures, process risks, and controls within the Employee Health Insurance Program offered to both active and retired employees and assess the processes for effectiveness and efficiency.
- B. Ensure that the Employee Health Insurance Program is administered in accordance with HRSD policies and procedures, as well as applicable laws and regulations.
- C. Ensure Wellness Program incentive payments and deductible discounts are supported and made completely, accurately, and timely.
- D. Ensure third party payments are processed in accordance with contract terms and are made completely, accurately, and timely.
- E. Ensure the Retiree Health Program adheres to requirements of the Retiree Health Plan Trust.

Scope

The audit process was initiated in August 2016 and completed in November 2016. The scope included relevant activity within the time period of July 1, 2015 through September 30, 2016. The procedures performed focused on the policies and procedures in place during that time period.

Methodology and Approach

In order to achieve the objectives of this review, SC&H performed the following procedures.

Process Walkthrough and Flowchart Creation

SC&H began the audit by conducting several meetings with members of the HRSD HR Division to identify and walk through the core sub-processes of administering the Employee Health Insurance Program. These discussions focused on process flow, required approval, inputs/outputs, and other control points. Additionally, relevant policy and procedure documentation was obtained and reviewed. Based on these discussions and review of the procedural documentation, SC&H created summarized process flowcharts.

The processes identified and documented included:

-) New Hire Offering of Medical Benefits
-) Annual Enrollment of Medical Benefits
-) Change of Life Event Processing
-) COBRA Offering

-) Wellness Program Administration
-) Employee Health Insurance Program Administrative Costs
-) Retiree Health Insurance Program
-) HSA Administration

Creation of Project Plan

Based on the understanding of the processes, risks, and related controls, SC&H developed an audit program to achieve the objectives described above. This program included detailed steps to address each objective with the goal of verifying the existence of sound internal controls and identifying opportunities for improvement.

Execution of Project Plan

SC&H executed the audit plan by completing the following tasks:

Subject/ Scope	Population	Evaluation
New hires	All	Ensured appropriate, timely enrollment
Change of life events	Sample	Verified the timeliness and accuracy of the benefits updates in the HR system and Cigna records
Current child dependents enrolled in a Cigna plan	All	Verified all non-spouse dependents are 26 years of age or younger
Current Core HR ERP system access	All: System	Ensured appropriately restricted access and user business needs
Terminated employees in scope	All	Verified all received timely COBRA notification from P&A Group (30 days from Term Date)
2015 HSA contributions: All employees with an HSA account	All in scope	Verified payroll deductions did not exceed the allowable IRS limit for 2015
Assigned Cigna Active Membership plans	All	Verified discounted deductible plans are granted only to new hires or compliant Wellness Program participants
Wellness Program FY16 incentive payments	All	Verified payments were only provided to appropriate recipients at the correct rates
Administrative invoices (e.g. Symetra, Sentara, Cigna, Willis, Optima Health, P&A Group)	Sample	Verified process compliance and accuracy

Subject/ Scope	Population	Evaluation
2015 Bolton Partners Valuation Report of the Retiree Health Care Trust program	All: 1 report	Evaluated for compliance with GASB 45 accounting and financial reporting standards
HRSD retired population	Sample	Verified retiree health plan participation procedures were appropriately administered

Summary of Work

After reviewing processes in place and evaluating the current control environment, SC&H concludes that, while there are no significant internal control shortcomings, there are several process improvement opportunities that exist to increase overall process effectiveness and efficiency and strengthening of internal controls. The majority of identified issues can be remediated through enhanced use of automation and the development of formal, consistent procedures.

The following section provides detailed observations and recommendations regarding six separate topics.

We appreciate the assistance and cooperation of the management and staff of HRSD’s Human Resources Division during the performance of the Employee Health Insurance Administration review. Please contact us if you have any questions or comments regarding any of the information contained in the audit report.

SC&H Group, Inc.

Joseph D. Freiburger, CPA, CIA, CISA
 Director

II. Detailed Observations and Recommendations

Observation 1

The manual process of updating changes to employee benefit information into the Cigna records may result in employee coverage errors.

Observation Detail

Bi-weekly, an HR Specialist generates and reviews a Benefits Listing report from Core HR ERP to identify new-hire employees that enrolled in the HRSD health care plan, employees who were recently terminated, and processed change of life requests. The HR Specialist manually updates account information in the Cigna records on the employees' behalf based on selections made in the Employee Self-Service module of ERP and the review of the bi-weekly Benefits Listing report. During the data analytic review of deductible amounts, two employees had active benefits as of September 2016 after being terminated in May and June 2016 respectively. Furthermore, throughout testing it was identified that certain data views within the Cigna records did not accurately reflect the current coverage for the employees.

Risk

Terminated employees can remain active in the employer health program records resulting in inappropriate costs to the organization for separated employee medical costs. Relying upon non-automated processes can result in a reduction in resource efficiency and overall effectiveness.

Recommendation 1.1

HRSD should ensure that the identified errors are resolved in the Cigna records. HRSD should verify that medical expenses for the former employees were not incurred after their termination date. HR Management should also consider incorporating a formal, documented, secondary review by an independent HR Specialist to reconcile the Benefits Listing report to Cigna following the initial profile updates for completeness and accuracy.

Management's Action Plan and Implementation Date

HRSD has corrected the discrepancies identified during the audit to include the verification that medical expenses for former employees did not occur after their termination date. Until the interface file is in production, a monthly review of benefit changes will be completed by an independent HR staff member with the appropriate documentation. This process will begin on December 1, 2016.

Recommendation 1.2

HRSD should continue to work towards integrating the ERP system with the Cigna records and implement an automated interface file which transfers employee benefit changes directly into the Cigna system.

Testing should be performed to ensure all expected changes are completely and accurately updated in all views and reports within Cigna for consistency of reliable information. Furthermore, HRSD should implement a documented audit monitoring process to periodically review the automated benefit changes for completeness and accuracy. Any discrepancies should be communicated to Cigna for system integration issue resolution, as appropriate.

Management's Action Plan and Implementation Date

Work will continue on the interface file with CIGNA. The plan is to have that file finalized, thoroughly tested and in production by February 1, 2017. Once the file is fully functioning, HRSD will be reviewing and documenting any discrepancies after each file transmission.

Observation 2

Employee deductibles are not always appropriately assigned.

Observation Detail

Annually, Optima Health, the third-party provider of the Wellness program, provides HR a report detailing all employees who earned the deductible discount for the upcoming health plan year. In order for employees to be eligible for the deductible discount, employees must satisfy four specific requirements annually or be an employee within the first year of employment. Wellness discount requirements includes an online personal health assessment, biometric screening completion at an on-site location or primary care physician office, annual preventative exam with primary care physician, and completion of four online or on-site health improvement programs. Once HRSD receives the report from Optima Health, an HR Specialist manually updates the deductible rates into the Cigna system on the employees' behalf. Our review of all employee deductible assignments found six employees were granted inappropriate deductible discounts, with a HRSD potential cost impact of \$4,500. Specifically:

-) Three employees enrolled in a family health with dependents with a deductible of \$3,000 rather than \$4,000, resulting in a total variance of \$3,000.
-) Three employees enrolled in an individual plan with a deductible of \$1,500 rather than \$2,000, resulting in a total variance of \$1,500.

Risk

Incorrect deductible amounts increase HRSD's financial exposure and potential cost for medical claims. In the event a deductible is higher than allowed, an employee would pay more out-of-pocket costs.

Recommendation 2.1

HRSD should ensure that the identified errors are resolved in the Cigna records. Furthermore, HRSD should verify that medical expenses for the identified employees did not exceed the discounted deductible rate.

Management’s Action Plan and Implementation Date

HRSD has corrected the discrepancies identified during the audit and verified that employees did not exceed the discounted deductible rate.

Recommendation 2.2

HR Management should consider implementing an annual audit of employee deductible records to ensure completeness and accuracy. The process should verify that the assigned deductible amount matches the plan type (family vs. individual) and includes a reconciliation between the Optima Health deductible eligibility listing and an HR report of new hires. Furthermore, this audit should be conducted by an HR Specialist independent of the Wellness Program.

Management’s Action Plan and Implementation Date

This issue will be resolved with the completion of the interface file between HRSD and CIGNA. With the current processes being separate and manual, the utilization of the interface file will ensure that both systems have the same information. Until the interface file is in production, a monthly review of benefit changes to include the wellness status will be completed by an independent HR staff member with the appropriate documentation. This process will begin December 1, 2016. Once the file is fully functioning, HRSD will be reviewing and documenting any discrepancies after each file transmission and at the beginning of each Wellness year.

Observation 3

HRSD HR does not maintain complete, clear, and accurate documentation for the administration or participation in the health care benefits process.

Observation Detail

Policy and procedure documentation is not formally established or documented for the administration of the health benefits process. This includes Standard Operating Procedure (SOP) documentation for HR employees to reference for process guidelines. The HR manual for HRSD employees to reference for healthcare rules, milestones, and expectations does not include all requirements and rules that impact employees. Specifically, our review found:

-) HR does not have documented policies or SOPs’ for HR employees. HR policies do not reflect the following managerial decisions.
 - o Re-Hire Benefits: There is no current language or policy defining that re-hires are eligible for new-hire deductible discounts regardless of the separation time lapse or HRSD years of service consideration.

- Length of New-Hire Deductible Discounts: There is no current language stating that new-hires joining a plan year in January or later (during a plan year), receive the discounted deductible for the remainder of the plan year plus an additional full plan year without having to meet the wellness program requirements.
- J) The HR Manual does not clearly define all rules and requirements that employees need in order to gain a clear understanding of the active and retiree health care programs. Through testing, SC&H noted the following ad-hoc business practices that were not present in the HR Manual:
- Years of Service Calculation: There is no description regarding the years of service counting toward the qualification for the retiree health plan. It may result from either consecutive years of service or combined total years of service.
 - Retirement Enrollment Forms: There is no language stating that employees must complete and submit a Retirement Enrollment Form prior to their retirement date, upon canceling, or declining coverage, as stated in the Retirement Trust. Furthermore, the HR Manual does not explicitly mandate that the employee must make an election at retirement or they forfeit their right to participate in the program.
 - Retiree Enrollment Requires Active HRSD Health Coverage: Currently, to be eligible for the retiree health care plan, retirees are required to have active HRSD health care coverage. There is no language stating the duration of health care coverage required prior to enrolling within the retiree health care program.

Risk

Non-formalized or undocumented processes can result in inconsistent application of rules, reduced efficiency by department employees, as well as increased business continuity concerns resulting from a lack of available knowledge transfer.

An incomplete or unclear HR Manual can cause employee confusion and be perceived as poor transparency and organizational communication. Additionally, ad hoc HR processes can result in uneven application of rules, which may not be formally approved by HRSD management.

Recommendations 3.1

HR should formally document operating procedures for essential internal functions and processes. The flowcharts created in conjunction with this review may serve as an initial starting point in documenting these procedures. However, operating procedures should include detailed steps for executing key processes and reviews while ensuring compliance with relevant laws and regulations.

Management's Action Plan and Implementation Date

HR will document operating procedures and processes including key process steps. Procedures will be reviewed and updated at a defined frequency to ensure compliance with relevant laws and regulations. Operating procedures will be developed and approved by July 1, 2017.

Recommendation 3.2

HR should update the HR Manual to reflect the components identified in the observation. The updated HR Manual should be reviewed and approved by HRSD Leadership. HR should periodically review and update the HR Manual to reflect changes in employee expectations, benefits, benefit rules, etc. to ensure the HR manual reconciles with the requirements of the Retiree Health Care Trust.

Management's Action Plan and Implementation Date

The HR Manual will be updated to include wording on eligibility requirements to clarify year of service calculations and enrollment requirements. These changes will be effective February 1, 2017. A process exists for continuously updating the HR Manual including Senior Management review and approval. The HR Manual provides a high level overview of our policy consistent with the Retiree Health Care Trust with the specific details of practices being documented in the Retiree Health Plan Description of Plan Benefits.

Recommendations 3.3

HR Management should develop a succession plan to ensure that employees are adequately trained or cross-trained to serve as a back-up for the duties currently performed by HR Specialists.

Management's Action Plan and Implementation Date

HR Specialists are cross-trained to ensure critical business processes are maintained. However, this process is not formally documented. A cross-training plan including documentation will be developed and implemented by July 1, 2017.

Recommendations 3.4

HR Management should coordinate with legal counsel and the Chief Financial Officer to understand the implications of requiring employees to participate in the active health care program prior to enrolling within the retiree health care program. This review should focus on the benefits and rationale of this requirement and should seek to determine an appropriate period of participation in the active health care program prior to eligibility for enrollment in the retiree health care program.

Management's Action Plan and Implementation Date

HR Management is currently following up on this issue with legal counsel. A recommendation is expected by January 1, 2017.

Observation 4

Access to the Core HR ERP system is not properly restricted or monitored.

Observation Detail

HRSD uses an ERP system to integrate modules to manage and execute several business functions. HR uses the Core HR ERP module to administer the health care program. Access to Core HR ERP is restricted primarily to HR employees, however several exceptions were noted. Additionally, it was noted that a process is not in place to monitor or periodically review access for appropriateness. Specifically, our review found:

- J Three users with inappropriate access roles to Core HR ERP. Based on discussions with HR Management, these users no longer have a business need and access should be removed.
 - HRSD US Super HRMS Manager (one user)
 - HRSD US Payroll Super User (one user): Specifically a payroll employee with access to create or edit employee information in the HR system.
 - HRSD HR User (one user)
- J Five generic usernames with access to Core HR ERP roles with multiple employees capable of logging into a generic username. This eliminates the ability to accurately identify a single user and increases the risk of untraceable activity to a specific user.
 - HRSD US Super HRMS Manager (two usernames)
 - System Administrator (five usernames, two of which are the same as the prior role usernames)
- J Three users in the IT area with access to several Core HR ERP roles and there is no activity monitoring. While HR Management stated that IT has access in an administrative capacity, the user activity is not monitored to ensure activity is appropriate.
 - HRSD US Super HRMS Manager
 - HRSD US Payroll Super User
 - HRSD HR User
 - System Administrator

Risk

Failure to properly restrict and monitor access to critical systems within the organization increases the risk of inaccurate records, misuse of confidential information, or fraudulent activity.

A specific segregation of duties risk exists with regard to payroll user access to the HR system. A member of payroll with the capability to create a new employee record within the HR system may have the opportunity to establish a false “ghost” employee in the system. The payroll user may then have the ability to create and approve payments to the ghost employee account, resulting in the misappropriation of funds.

Recommendation 4.1

HR Management should review the business needs of current users and update and restrict the access exposures identified in this observation. Furthermore, HR Management should perform a similar review of access to Cigna administrative roles and verify that access is properly restricted and rights are segregated.

Management's Action Plan and Implementation Date

Based on business needs of current users, roles have been changed to address security concerns using the standard out of the box roles provided by Oracle. HRSD will evaluate development of custom roles to secure the HR and Payroll functions by April 2017.

Recommendation 4.2

HR Management should implement a process to periodically monitor access to Core HR ERP and Cigna Admin for current users, and generic/IT username activity for appropriateness.

Management's Action Plan and Implementation Date

HRSD will develop and implement a process to monitor access to Core HR ERP and CIGNA admin by March 1, 2017.

Recommendation 4.3

HRSD HR Management should remove generic usernames from Core HR ERP. Removing generic usernames will increase accountability and increase the efficiency and simplicity of access reviews.

Management's Action Plan and Implementation Date

HR Management will work with Information Technology to review and determine feasibility of this recommendation or another approach for minimizing this risk. The generic usernames are used by HRSD Business Analysts and IT staff to perform certain system functions established by Oracle EBS standard functionality. The recommendation may require system customization which HRSD has limited due to other business risks.

Observation 5

A process is not in place to ensure HRSD pertinent information relative to employee separations are communicated to P&A Group¹ and assuring that a COBRA package is issued timely.

Observation Detail

Bi-weekly, Core HR ERP is configured to automatically send a report to the P&A Group. The report identifies recent new-hires or recent terminations/deceased employee's families who are eligible to receive COBRA coverage. Once P&A Group receives the report, HRSD requires that the former employee or survivor be informed within 44 days of his/her COBRA coverage options. The Employee Retirement Income Security Act (ERISA) requires that group health plans provide notification of coverage and a summary plan description within 90 days of COBRA coverage. HRSD is invoiced by P&A Group for each notification at an agreed upon rate. During our review, the process in place to communicate COBRA notifications to affected employee populations did not appear to be operating effectively. Specifically, our review of 86 termed employees between July 1, 2015 and July 30, 2016 found:

- J Four former employees were not sent their COBRA separation package timely (55-74 days after termination).
- J Sixteen former employees were not sent their COBRA separation package after termination.
 - o Three did not receive their COBRA separation package because P&A Group did not send the package after being properly informed by HR.
 - o Thirteen did not receive their COBRA Separation Package because communication of the termination was not sent to P&A Group by HR.

Risk

Failure to send a COBRA notification to terminated employees and dependents of recently deceased employees results in non-compliance with policies, governing bodies, and may result in financial penalties, as enforced by the US Department of Labor.

Additionally, there is a risk of incorrect payment to P&A Group resulting from notifications not being properly issued to covered individuals.

Recommendation 5.1

HR Management should establish a process to confirm that P&A Group received the ERP report that lists the former HRSD employees who are expected to receive a COBRA separation package. Additionally, HRSD should reconcile P&A Group invoice detail to HR reports of recent terminations and follow up with P&A Group if any discrepancies are identified.

¹ P&A Group is a third-party service provider contracted with HRSD to provide COBRA notification services.

Management’s Action Plan and Implementation Date

The COBRA file is scheduled to run bi-weekly and is automatically transmitted to the P&A Group. A notification is received once the file runs with a status of completed or failed. HRSD will develop and implement a process to review monthly invoices and terminated employees to ensure all required notifications are sent effective December 1, 2016.

Recommendation 5.2

HR Management should consider implementing formal procedures to periodically test the bi-weekly automated report generation process to gain comfort with completeness and accuracy.

Management’s Action Plan and Implementation Date

HRSD will develop and implement a formal procedure to periodically test the bi-weekly COBRA file effective March 2017. HR will continue to work with IT staff to ensure file accuracy.

Recommendation 5.3

HR Management should establish a process to monitor and grade P&A Group based on contract compliance and performance metrics. Failure by the vendor to provide complete and accurate services should be discussed with the vendor and be considered at the time of contract renewal.

Management’s Action Plan and Implementation Date

HR is currently working with our Benefit Consultants and Procurement staff to implement performance metrics. If able to add at renewal, this will be effective July 1, 2017.

Observation 6

The process in place to ensure the Retiree Program is administered in accordance with the Retiree Trust requirements is not effective.

Observation Detail

In July 2002, HRSD established a retiree benefit plan through a Retiree Trust for the benefit of its participating employees and their dependents. The Trust serves as the guiding document for the Retiree Health Care program, which is independent from the active employee health care program. HR is responsible for facilitating enrollment and administering the day-to-day transactions. HR administration of the Retiree Health Care program should align with the requirements of the Trust and any amendments since its creation. During our review, we found that compliance with aspects of the Retiree Trust does not always occur. Specifically, we noted the following:

-) For three of 10 employees who became eligible to participate in the retiree health plan during the audit scope reviewed, we found that the Retirement Health Care Enrollment form was not completed or not completed timely.

- One employee completed the enrollment form for retiree medical coverage after their retirement date.
- Two employees enrolled within the program without completing the enrollment form.
-) For three of four employees who canceled or declined from participating in the retiree health plan during the audit scope reviewed, there was no documentation supporting or evidencing they elected to cancel or waive retiree health care coverage.
-) For two of seven employees who reached the Medicare Part B enrollment age of 65 during our audit scope, there was a delay in the enrollment and transition to Medicare as primary.
 - One employee did not update their coverage until seven months after turning 65
 - One employee did not update their coverage until 11 months after turning 65

Risk

Failure to align and execute the administration of the Retiree Program with the Retiree Trust increases the risk of non-compliance with policy, causing a potential for a higher cost burden on HRSD as a primary rather than secondary payer in the event that an employee remains on the HRSD plan past age 65.

Additionally, employees who do not elect coverage may be provided coverage and employees who cancel coverage may not be appropriately documented. This can result in confusion in the event of a medical claim, potentially resulting in additional, inappropriate costs to HRSD.

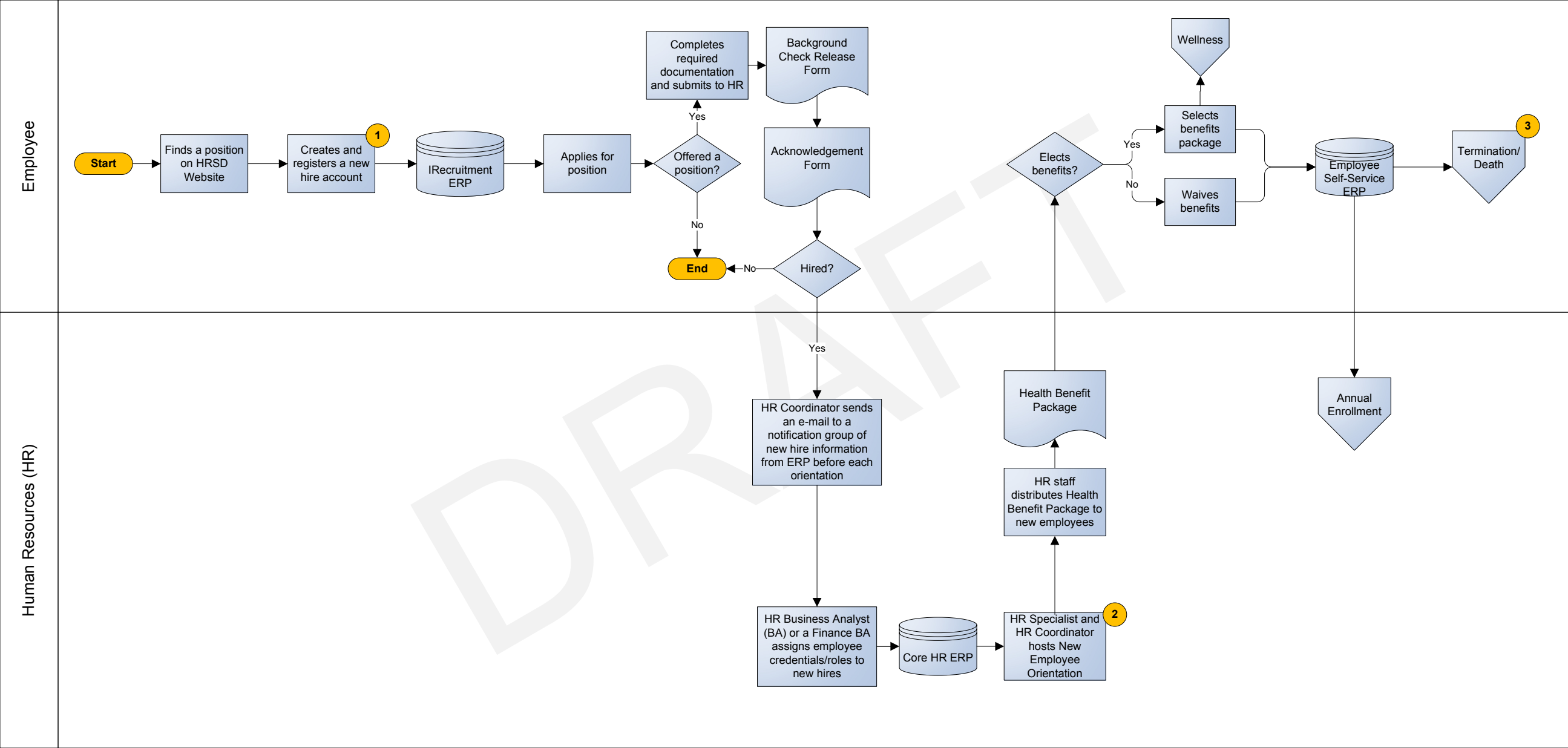
Recommendation 6.1

HR Management should ensure all retiree health plan elections (i.e. enrollments, cancellations, and waivers) are supported by a completed Retiree Healthcare Enrollment Form. Management should consider implementing a retiree checklist. The checklist should include required documentation needed to complete enrollment and the documentation should be retained in the retiree’s file. Furthermore, at the time of retirement, the date the retiree reaches age 65 should be noted and tracked to ensure timely switchover to Medicare. Also, HR should periodically audit retiree accounts for compliance with required documentation.

Management’s Action Plan and Implementation Date

HR has modified the Retiree form to ensure all retiree health plan elections are supported. HR will develop and implement a retiree checklist to document the steps in the process and ensure all documentation is completed by April 2017. In addition, HR will run the Benefit Listing and monitor the date of birth for retirees and dependents to identify those nearing Medicare age to ensure timely switchover to Medicare effective January 2017.

Sub-Process	New Hire	Business Unit	Human Resources	Location	Hampton Roads Sanitation District (HRSD)	Year	2016
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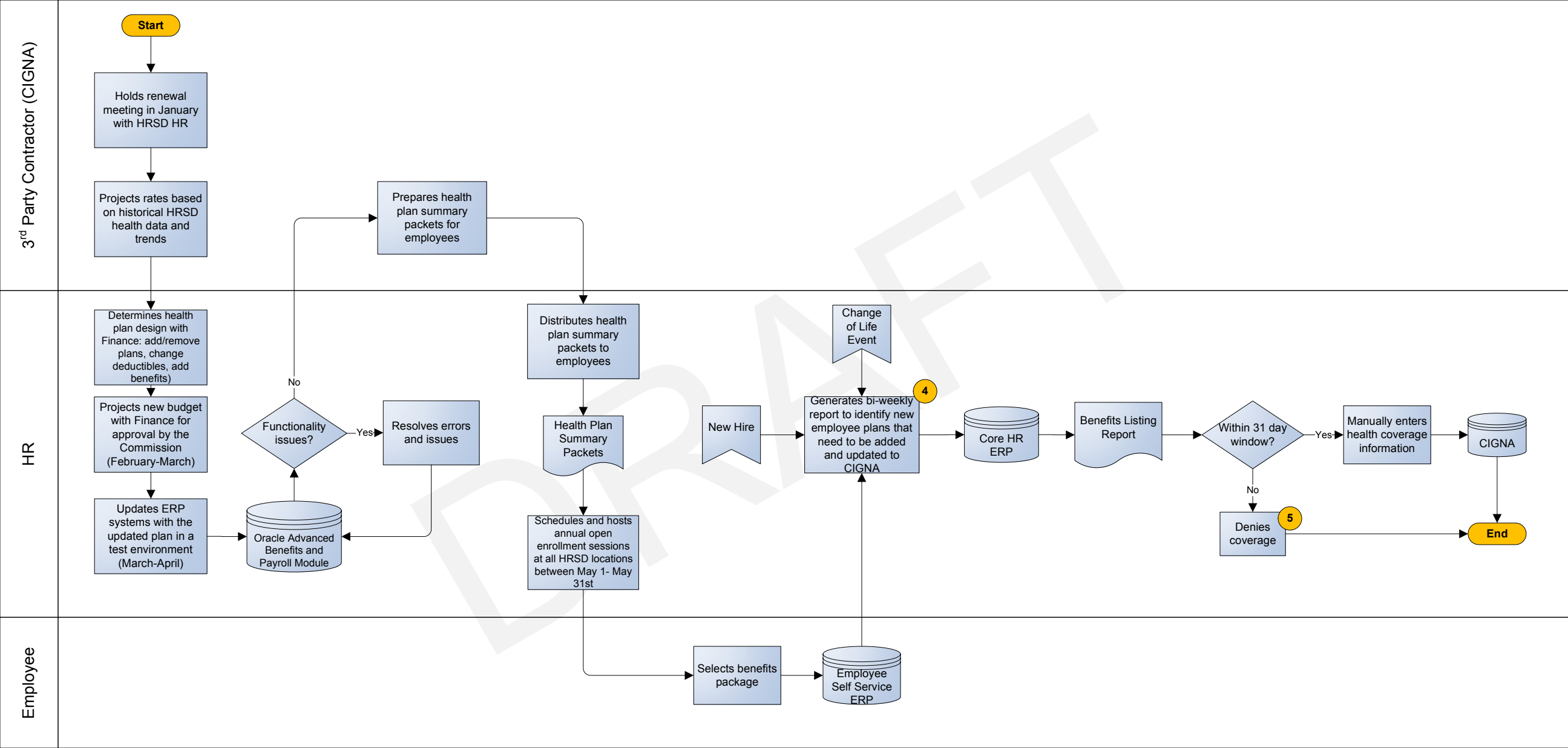


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Process	Decision
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Confidential

Key Personnel: Inda Ratcliff, Human Resources Specialist

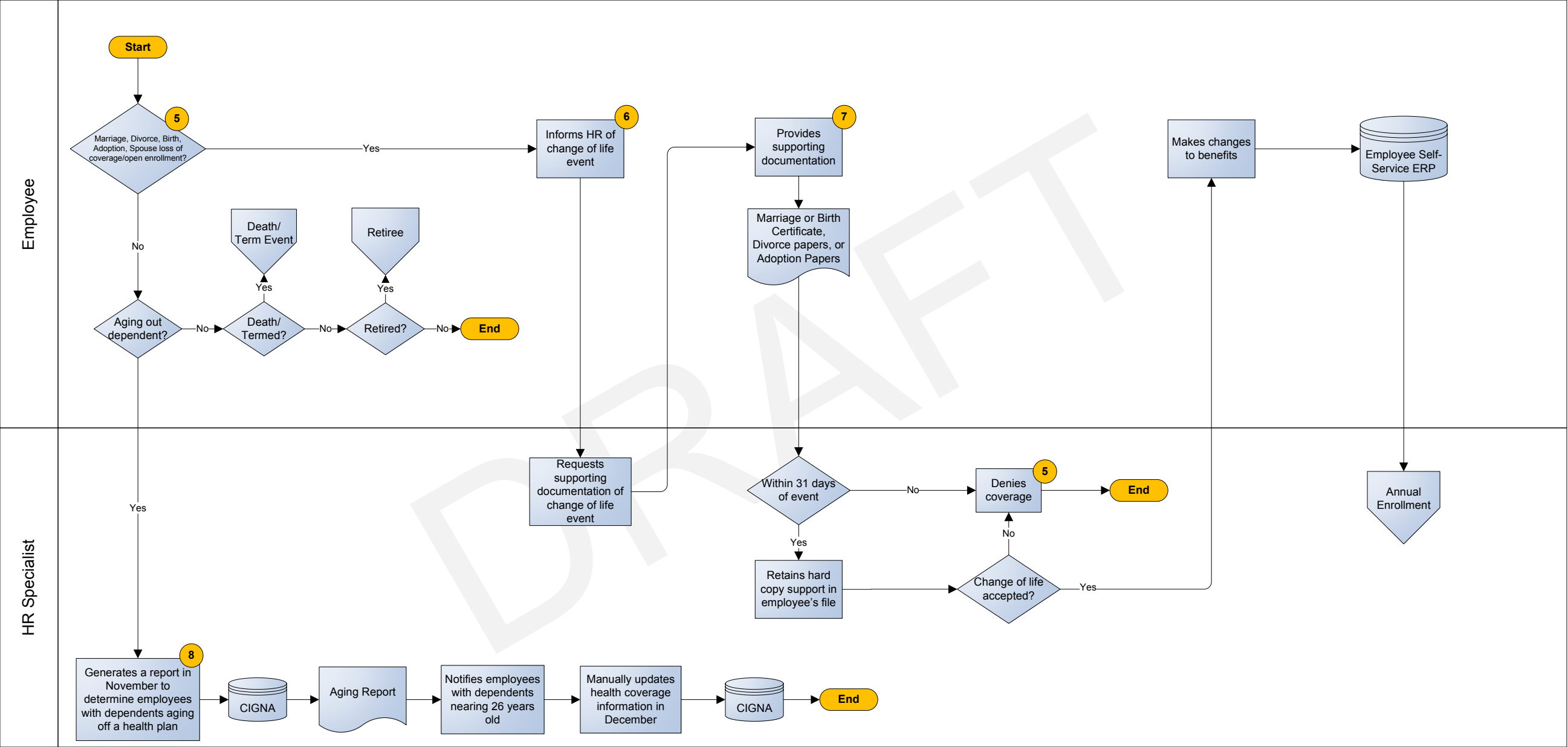
Sub-Process	Annual Enrollment/Employee Set-Up	Business Unit	Human Resources	Location	Hampton Roads Sanitation District (HRSD)	Year	2016
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Key Personnel: Inda Ratcliff, Human Resources Specialist



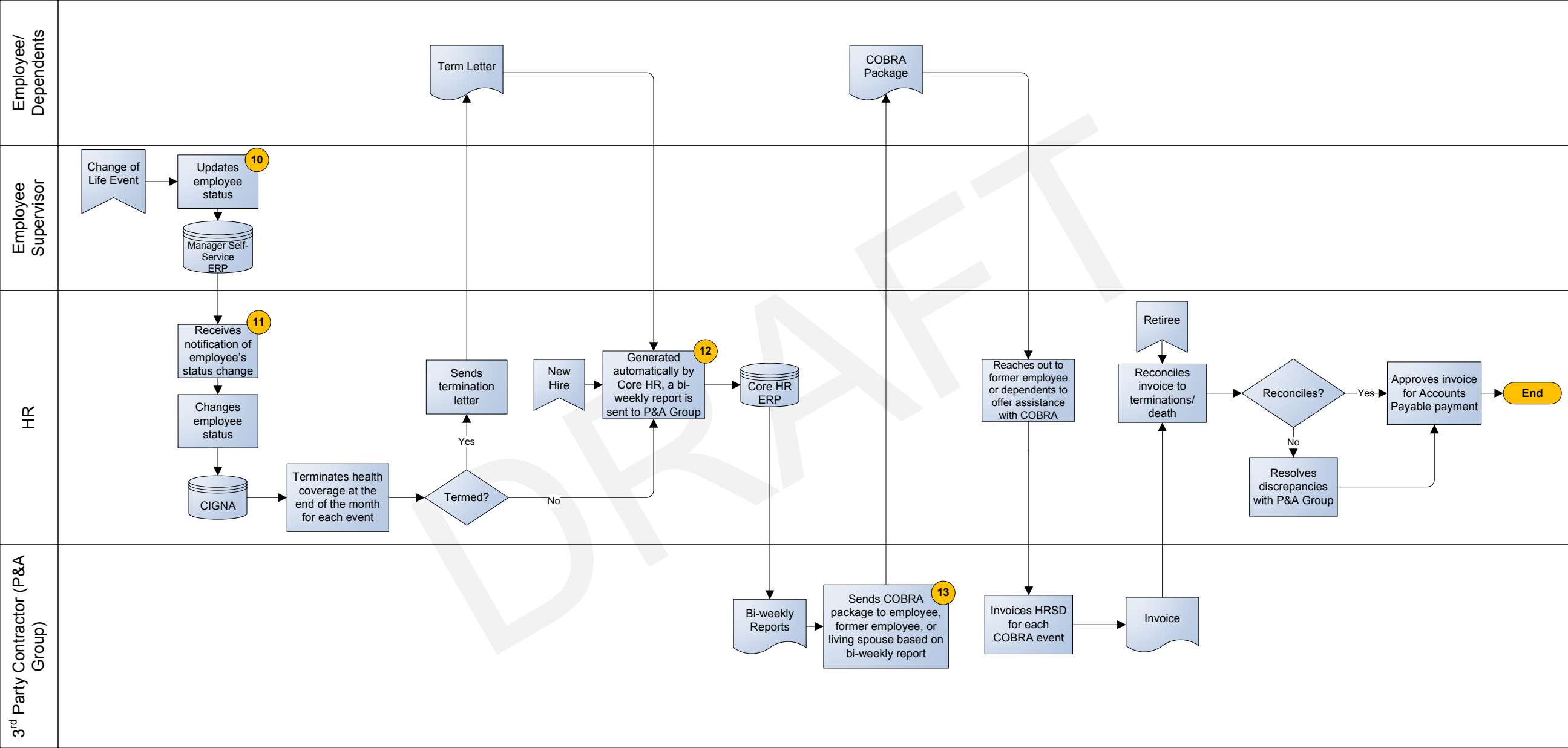
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Key Personnel: Inda Ratcliff, Human Resources Specialist

Sub-Process	Termination/Death of Employee	Business Unit	Human Resources	Location	Hampton Roads Sanitation District (HRSD)	Year	2016
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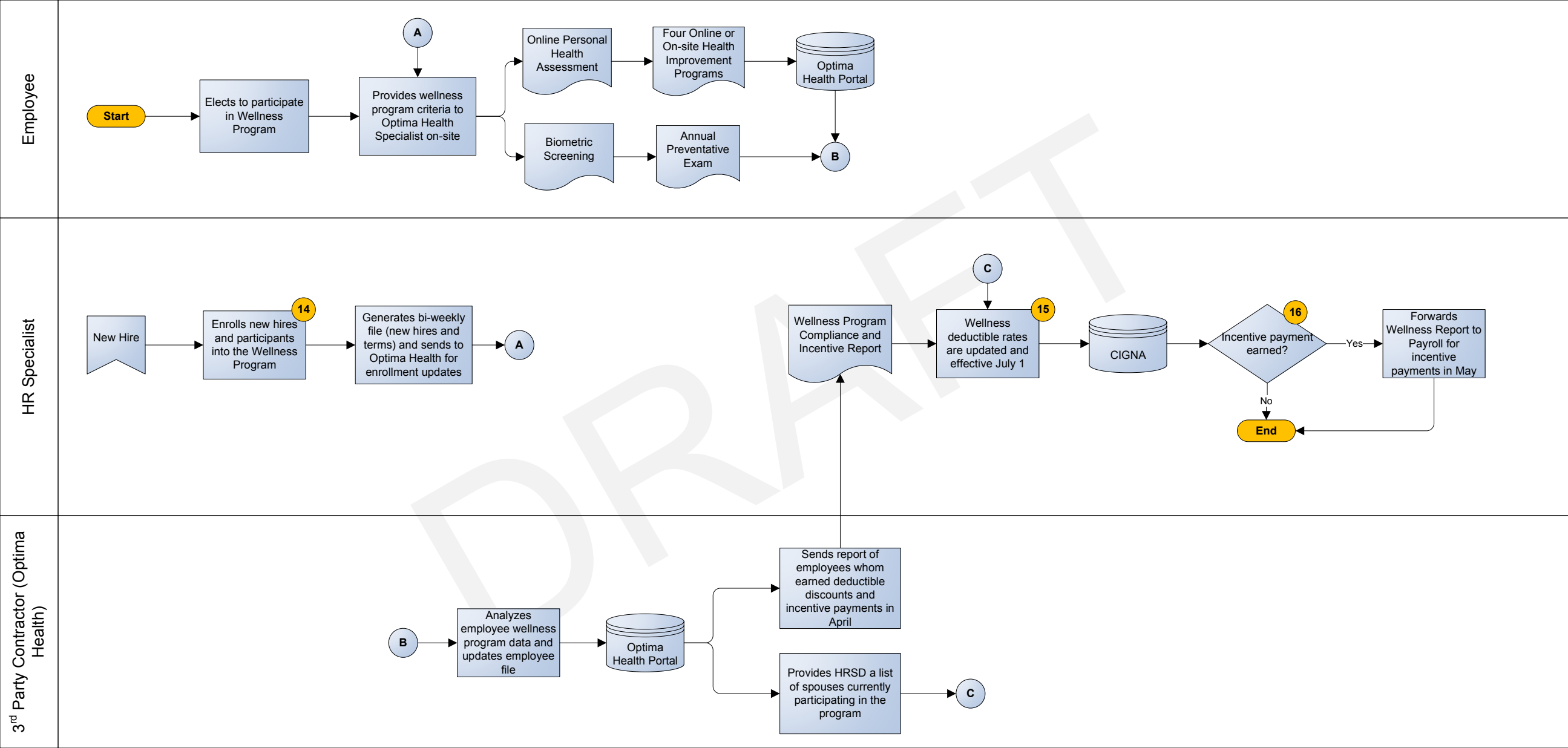
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Confidential

Key Personnel:

Inda Ratcliff, Human Resources Specialist

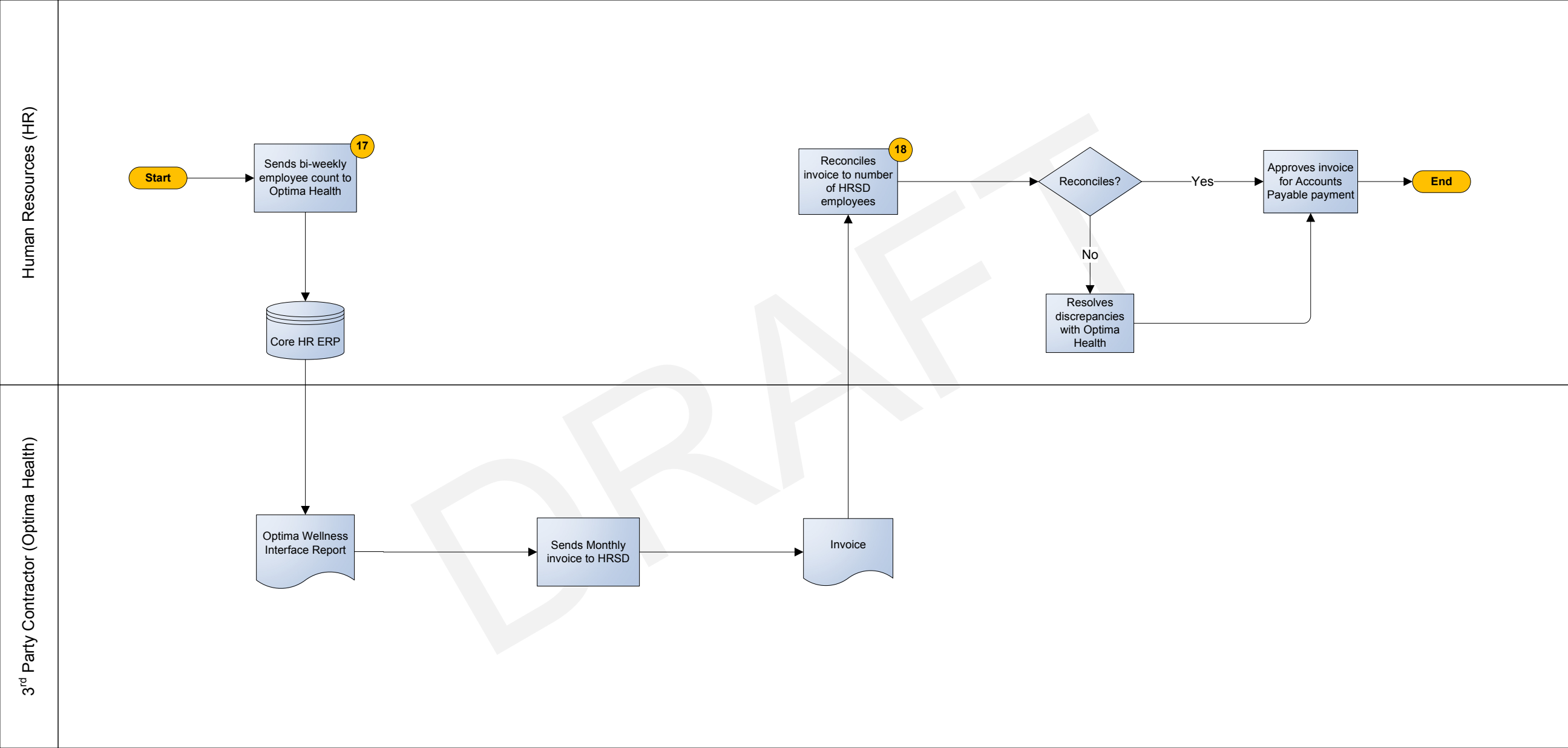
Sub-Process	Wellness Program	Business Unit	Human Resources	Location	Hampton Roads Sanitation District (HRSD)	Year	2016
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Incoming Reference	Flow Begin/End

Confidential

Key Personnel: Chanda Giles, Human Resources Specialist

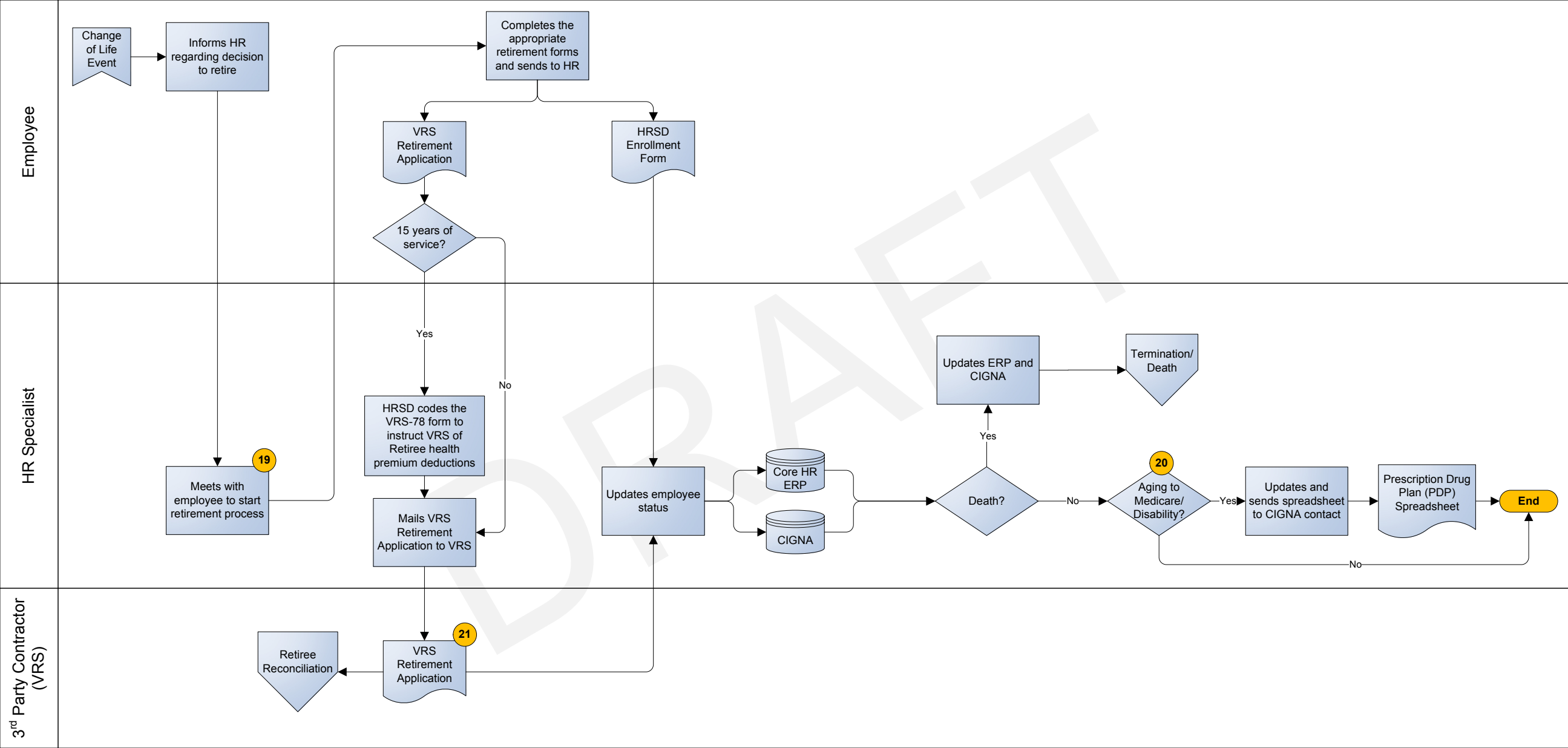


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Risk	Note	Decision	System	On-Page Reference	Flow Begin/End

Confidential

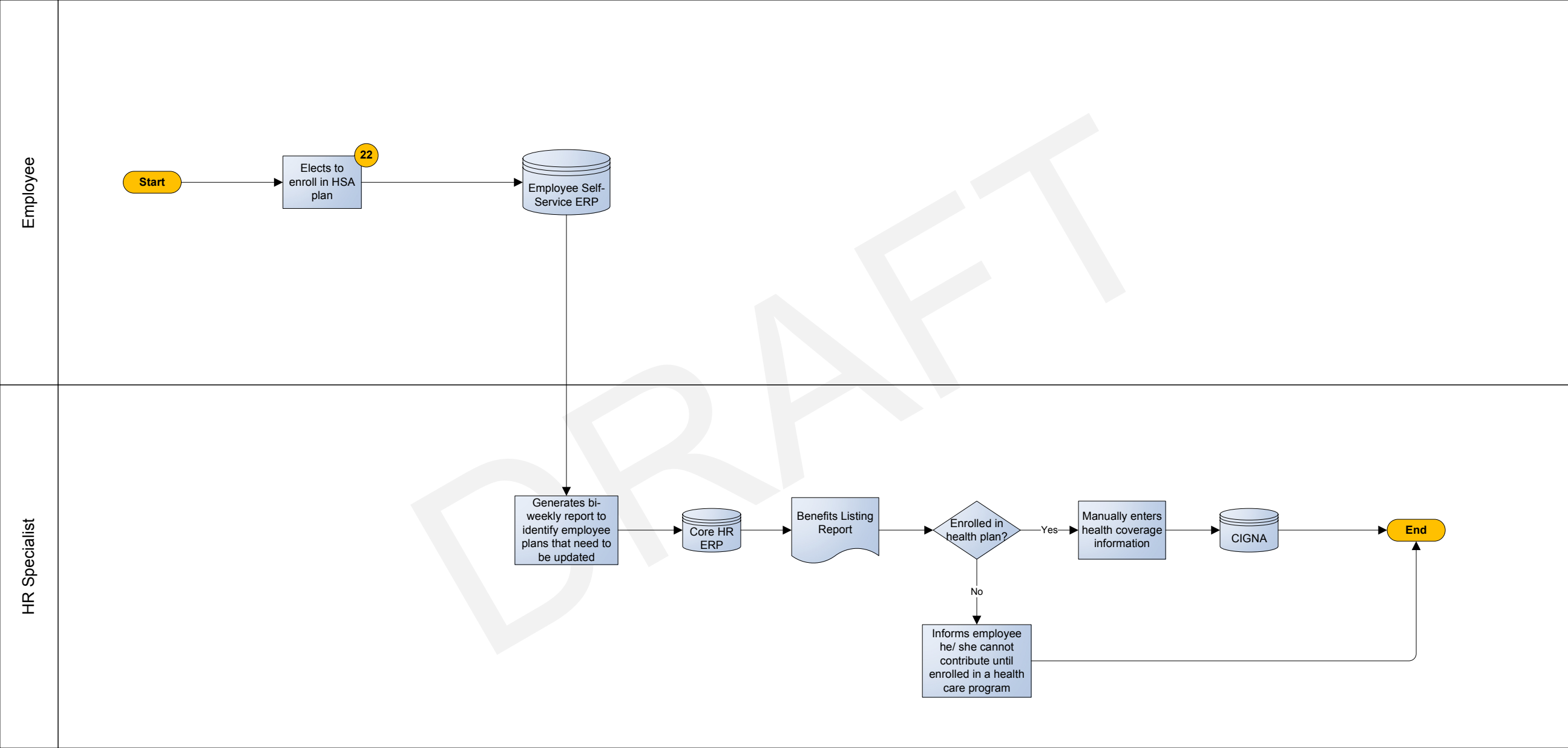
Key Personnel: Chanda Giles, Human Resources Specialist



Legend		Process	Document	Off-Page Reference	Incoming Reference
Control	Gap	Decision	System	On-Page Reference	Flow Begin/End
Risk	Note				

Confidential

Key Personnel: Inda Ratcliff, Human Resources Specialist



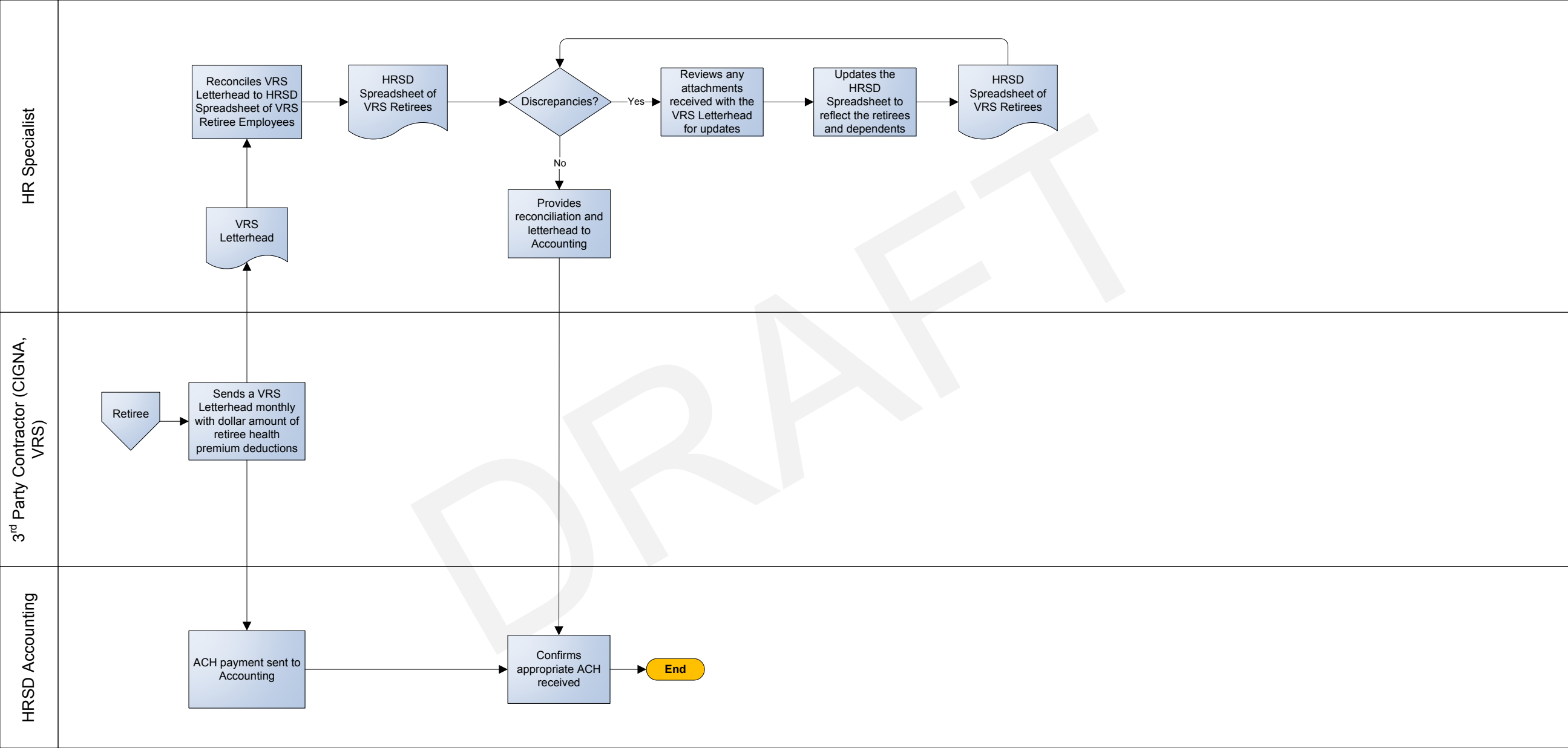
Legend

Control	Gap	Process	Document	Off-Page Reference	Incoming Reference
Risk	Note	Decision	System	On-Page Reference	Flow Begin/End

Confidential

Key Personnel: Inda Ratcliff, Human Resources Specialist

Sub-Process	Retiree Reconciliation	Business Unit	Human Resources	Location	Hampton Roads Sanitation District (HRSD)	Year	2016
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Legend

Control	Gap	Process	Document	Off-Page Reference	Incoming Reference
Risk	Note	Decision	System	On-Page Reference	Flow Begin/End

Confidential

Key Personnel:	Inda Ratcliff, Human Resources Specialist
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Notes

- 1 Upon applying for an HRSD position, the prospective employee has the option of entering his/ her date of birth and basic demographic information. Upon offer, the HR Coordinator will obtain a completed Release Form from the prospective employee which includes his/ her date of birth, social security number and driver's license number. If the information has not been entered into EBS by the prospective employee, the HR Coordinator will complete the information in the system.
- 2 New hire orientations are offered every other week and align with HRSD pay periods. During orientation, new hires have the option to enroll into the HRSD health benefit program. The HR Specialists and HR Coordinators attend the orientation meetings and provide guidance, if needed, to employees interested in enrolling that day.
- 3 See Note 12.
- 4 The Benefits Listing Report can be run at any time by any HR staff member. It is recommended that each HR Specialist run the report on a bi-weekly basis to review changes that have occurred.
- 5 In the event that an employee misses the enrollment window by a few days, HR exercises discretion and has the flexibility to still enroll the employee if deemed appropriate.
- 6 Change of life events includes: marriage, death, divorce, birth, adoption, gain or loss of coverage, spouse's open enrollment and aging out of a dependent.
- 7 Employees may notify HR of change of life events in various ways, such as email, telephone, in-person conversations, and employee self-service ERP.
- 8 The Affordable Care Act (ACA) requires coverage for dependents up to 26 years of age. HRSD has extended that coverage to remain active until the end of the calendar year in which the dependent turns 26.
- 9 All change of life events need proper documentation, e.g. marriage certificate, birth letter, adoption papers, etc.
- 10 Normally, supervisors use the Manager Self-Service ERP module to update an employee's status, but HR staff have the authority to update an employee's status using the self-service or professional ERP modules.
- 11 Once the supervisor changes the employee's status, a notification email is auto generated to inform the notification group which includes HR. HR staff can also use the professional forms ERP module to review employees' status. For both terminations (voluntary and involuntary) and deaths, the supervisor updates the employee's status in the ERP. HR often learns of voluntary terminations through the ERP notification email and retiree deaths through the beneficiaries.
- 12 P&A Group is the 3rd party vendor contracted by HRSD to provide COBRA services to its employees. There are several automated reports that are sent to P&A Group, including the XXHRSD AB PA Cobra New Hire Interface that informs P&A Group of HRSD employee new hires, terminations, and deaths.
- 13 P&A Group has 30 days to notify termed employees of COBRA coverage, and the employee has 60 days to enroll once the notification has been sent.
- 14 New hires are automatically enrolled within the Wellness HDHP Plan for the first year.
- 15 Deductible discounts only apply if the employee, not spouse, meets wellness program compliance requirements, which include: an online personal health assessment, biometric screening, annual preventative exam, and four online or on-site health improvement programs. Wellness program year is March 1 through February 28th.
- 16 Wellness Program incentive payments are offered at the following compliance levels: Bronze (\$125), Silver (\$250), and Gold (\$500). Incentives can be awarded to both the employee and the spouse with all payments payable to the employee.
- 17 All active employees are included in the bi-weekly count. This report also displays the termination date for any employees that have separated so that Optima can update their system.
- 18 The HR Specialist reviews the monthly invoice that is emailed from Optima and compares it to the information previously sent to Optima for that specific timeframe to include the information on the spouse counts. Only employees and spouses can participate in the Wellness Program (not children). HRSD pays Optima Health a flat fee for each employee and spouse enrolled in the program.
- 19 Upon retirement, employees meet in person with an HR Specialist. The HR specialist walks the employee through the retirement process, including three required documents that the employee must complete: 1) HRSD Enrollment Form and 2) VRS 78 Form 3) VRS Retirement Application. The HRSD Enrollment Form enrolls the retiree into a health care program; the employee may elect to waive the program. The VRS 78 form is an application for retirees to earn the monthly health credit and provides VRS authorization to deduct monthly insurance premiums and send them directly to HRSD.
- 20 Retiree change of life consists of either turning 65 or becoming eligible for disability before turning 65. Both of these events are covered by Medicare. All HRSD employees transitioning to retirement must enroll in Medicare Part B. Retirees also have access to all change of life events that current HRSD employees have access to.
- 21 In the event of retiree health plan rate changes, HR completes a new VRS-78 form on behalf of the retiree. This updated form identifies the new rate to be deducted from the VRS benefits and sent to HRSD. Per the HRSD plan description, the signature of the retiree of the original VRS-78 form acts as the authorization for this type of change.
- 22 The Health Savings Account (HSA) plan is available and may be initiated anytime throughout the year by the employee as long as the employee is enrolled in HRSD's HDHP plan.



Hampton Roads Sanitation District Human Resources (HR)



Risks	Controls
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1	Access to HR systems and programs are not properly restricted.	Mitigating Controls: 1, 7 Gap(s): None
2	Employee enrollment in health care program is not processed timely, resulting in non-covered employees or additional costs.	Mitigating Controls: 2, 3, 4 Gap: 1, 3
3	Unauthorized or inaccurate changes are made in CIGNA, resulting in inappropriate coverage for employees/dependents or increased insurance costs.	Mitigating Controls: 3, 4 Gaps: 1, 4
4	Wellness program incentives are not properly earned, resulting in unnecessary payments and added program costs.	Mitigating Control: 11 Gap(s): None
5	Non-compliance with polices, governing bodies and regulations (e.g. Affordable Care Act, COBRA coverage, HSA contribution limits, HIPPA etc.).	Mitigating Controls: 2, 5, 8, 10, 11, 12 Gap(s): None
6	Inaccurate payments are made to third party providers for services received.	Mitigating Control: 6 Gap: 2
7	Deductible discounts are inaccurately applied, resulting in additional costs.	Mitigating Control: 7, 9, 13 Gap: 3
8	Plan designs are not cost effective resulting in additional costs to HRSD financial resources.	Mitigating Controls: 12, 15 Gap(s): None
9	Retiree health plan is not adequately funded to support the program.	Mitigating Controls: 12, 13, 14, 15 Gap(s): None

1	The HR Business Analyst grants all new hires Employee Self-Service ERP access rights. The granting and monitoring of access occurs for new hires, retirements, and terminations. Initially, the HR Business Analyst is notified by the HR Coordinator via e-mail of all new hires prior to each upcoming new hire orientation.
2	Bi-weekly, an HR Specialist generates a Benefits Listing Report from HR Admin ERP to determine if there are any new-hire employees that enrolled in the health care plan or if change of life updates were requested. The HR Specialist ensures that the enrollment has occurred within the 31 day window from the date of the new hire orientation or change of life event. The HR Specialist communicates any discrepancies or denied coverage as a result of timeliness issues with the employee directly.
3	The HR Specialist creates and updates accounts in CIGNA on employee's behalf based on selections made in Employee Self-Service ERP and review of the bi-weekly Benefits Listing Report. NOTE: This is a temporary process because the HR Business Analyst is working to integrate the ERP system with the CIGNA system, eliminating the need for the HR Specialist to manually enter employee health care coverage plans from the ERP system into the CIGNA system.
4	HR Specialists process change of life event requests as needed. Employees are required to notify HR of any change of life events and coverage must be updated in CIGNA within 31 days of the event. HR Specialists require supporting documentation of the change of life event to be submitted to validate the event and the support is retained in the employee file.
5	The HR Specialist reviews bi-weekly Payroll reports to identify and ensure any employees that recently created a Health Savings Account are enrolled in the health care benefits. Health Savings Account deductions are put on hold until enrollment in health benefits have occurred.
6	HR Specialists and the HR Manager review and approve all invoices that are received in HR (P&A Group, CIGNA, Synetra, Optima Health). For P&A Group invoices, a reconciliation between the invoice and HRSD records of termed or deceased employees is performed. For Optima Health invoices, HR relies on an employee and spouse count provided by the vendor. The approved invoices are sent to HRSD Accounts Payable for payment.
7	Access to process changes to employee health coverage in CIGNA is restricted to HR Specialists.
8	Annually in November, an HR Specialist generates a CIGNA report to determine employees with dependents that are aging off (26 years of age and non-spouse) a health plan for the calendar year. The HR Specialist notifies the employee and manually updates the employee's health plan in December to ensure that effective January 1 of each year, aged dependents are removed.
9	HR Specialist reconciles VRS Letterhead to HRSD Spreadsheet of VRS Retirees. Discrepancies are communicated and resolved with VRS. The HR Manager reviews and approves the reconciliation spreadsheet.
10	HR Admin ERP is configured to automatically send a bi-weekly report that interfaces with P&A Group to initiate any necessary COBRA coverage steps for recently terminated or deceased employees. P&A Group is required to notify former employees or dependents of COBRA coverage options within 30 days of termination or a deceased employee.
11	Optima Health is responsible for facilitating the Wellness program. Optima directly receives and maintains all health data. Optima Health sends report of employees whom earned deductible discounts and incentive payments in February to HRSD HR. HR Specialists make the necessary updates to employee deductibles in CIGNA and forward the incentive payment data to Payroll for payment.
12	Annually, HRSD engages an Actuarial Consultant to review and analyze the Trust funding, Trust expenses, Retiree Health Program expenses and future funding status. Employer contribution costs, retiree premiums, and deductibles are reassessed and adjusted annually if necessary. Furthermore, the program is reinsured to limit the financial impact and liability to HRSD of high cost claims.
13	HR Specialist reviews each Retiree's VRS Retirement Application for 15 years of HRSD service eligibility into HRSD Retiree Health Plan. The HR Specialist codes the VRS-78 form with the proper premium deduction inclusive of any earned health insurance credit and mails the form to VRS for processing. HR reserves the right to update rates and send a new VRS-78 form without the Retiree's signature.
14	An HR Specialist reconciles the monthly VRS Deduction Letterhead detailing the amount of the ACH payment for VRS deductions of Retiree Premiums to the HRSD Retiree Spreadsheet. Any discrepancies are researched and resolve with VRS.
15	Annually, HRSD HR and Finance review and determine health plan designs (add/remove plans, change deductibles, add/remove benefits based on a renewal meeting with CIGNA, the benefits consultant data, and budget performance.

Gaps	
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1	A formal process is not in place to review and approve all entries and updates made to CIGNA on employee's behalf for completeness, accuracy, and timeliness.
2	A process is not in place to independently determine the number of spouses participating in the Optima Health Wellness Program. HR relies on Optima Health Reporting for accurate invoicing of spouses.
3	Key milestones in the HRSD benefits process are not in sync (fiscal year, calendar year, deductible year, wellness program year).
4	Current system limitations do not allow for automatic transfer of information from HR Admin ERP to CIGNA, resulting in manual updates.
5	A process is not in place to ensure all eligible retirees complete an Enrollment form to elect or waive the benefit option upon retirement.
6	A process is not in place to periodically monitor and review CORE HR ERP access for appropriateness and activity.



Hampton Roads Sanitation District Human Resources (HR)



Process Information

Positions

HR Business Analyst (BA): Responsible for the Enterprise Resource Planning (ERP) system and ERP technical support.

HR Specialist: Responsible for administrative duties related to the employee Health Coverage Plans. The sub-processes include New Hire, Annual Enrollment/Employee Set-up, Change of Life Event, Termination/Death of Employee, Wellness Program, Wellness Plan Invoice, Retiree, Health Savings Account, and Retiree Reconciliation.

HR Coordinator: Supports the HR function and the New Employee Orientation.

Optima Health Specialist: Supports the HR Staff to facilitate the employee Wellness Program.

Systems

ERP: Enterprise Resource Planning tool used by HRSD. The ERP is comprised of several sub-systems used to monitor and control all aspects of HRSD's health care program.

CIGNA System: System used by CIGNA to administer HRSD employee health care coverage programs. HR Staff manually enter employee health care coverage information into the CIGNA system based on the updates made to the ERP.

iRecruitment ERP: System used for prospective employees to create a new hire account and apply for open HRSD positions.

Core HR ERP: Main ERP system used by HR Staff to monitor and control the administration of the health care program. This generates automatic bi-weekly reports that are sent to 3rd party health care administrators.

Employee Self-Service ERP: System used for current HRSD employees to monitor and update their health care coverage plans.

Manager Self-Service ERP: System used for HRSD supervisors to inform HR Staff that there was a termination or death of an employee.

Optima Health Portal: System used by HRSD employees to update and upload their required Wellness Program documentation. Wellness Program documentation includes health assessments, biometric screenings, preventive exams, and improvement programs.

Other

CIGNA: HRSD's health insurance provider.

Consolidated Omnibus Reconciliation Act (COBRA): Act that gives HRSD workers and their family who lose health benefits the right to continue group health benefits provided by HRSD for a limited period of time.

P&A Group: HRSD's COBRA provider.

Optima Health: HRSD's wellness program provider.

Virginia Retirement System (VRS): Retirement System that administers HRSD retiree health premium deductions.

Health Benefit Package: Informational booklet given to all new HRSD hires describing all available health care coverage plans.

Health Plan Summary Packet: Informational booklet given annually to current HRSD employees describing all available health care coverage plans, including any changes from the previous year that may affect their health care coverage.

Open Enrollment Sessions: Informational seminars hosted annually by HR to help HRSD employees enroll in the health care coverage plan that best fits the employees' needs.

Benefits Listing Report: Report used by HR Staff to identify new employee health care coverage plans. This report directly influences the updates made to the CIGNA system.

CIGNA Renewal Meeting: Annual meeting between CIGNA and the HR Staff to project health care rates for the upcoming year. Rates are based on historical HRSD health data and trends.

The Commission: The Hampton Roads Sanitation District Commission. The Commission is responsible for the review and approval of all HRSD Health Plan Benefits.

Aging Report: Report generated by the HR Specialist each November to determine employees with dependents aging off a health plan.

Change of Life Event: Events identified by the IRS Code that warrant an immediate change in health care coverage, if the employee elects to do so. Change of life events include, marriage, divorce, birth, adoption, spouse loss, death, termination, and retirement.

COBRA Package: Informational booklet sent to a recently terminated employee, or dependents of a recently deceased employee. P&A Group provides the COBRA Package booklet.

Wellness Program: Health program that offers HRSD employees health care premium deductibles and cash incentives.

Wellness Program Compliance and Incentive Report: Report sent from Optima Health listing the HRSD employees who earned deductibles and incentive payments.

Prescription Drug Plan (PDP) Spreadsheet: Form HRSD retirees who are eligible for Medicare (>65 or disability) complete out for Medicare coverage.

Health Savings Account (HSA): Non-taxable savings account HRSD employees may use to pay for health plan premiums. The health savings account can roll over year over year.

VRS Letterhead: Monthly letterhead sent to HR Staff listing the dollar amount of retiree health premium deductions. The letterhead is sent monthly by the Virginia Retirement System (VRS).

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**Hampton Roads Sanitation District
Internal Audit Status**

February 28, 2017

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Internal Audit Team Present

SC&H Team
Matthew Simons, CPA, CIA
Engagement Principal

Ryan Kohan
Manager, Team Lead

2


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SC&H Internal Audit Progress: Agenda

Meeting Topics

- Internal Audit Impact
- FY2017 Internal Audit Status: Completed, Current, and Planned
- FY2018 and FY2019 Audit Plans
- Discussion and Questions




3




Internal Audit Impact

Statistics

- **2** risk assessment exercises performed
- **10** audits through FY2018 to be completed (13 Functions)
- **14** audits through FY2019 to be completed (18 Functions)
 - 2 audits in each department, including “Enterprise-Wide”
 - Combing functions when appropriate
- Through FY2019, **11** of **20** high risk functions to be assessed (55%)
- **19** reportable observations (completed audits)
 - 8 observations to be assessed for management action plans in FY2017, Q4



4



Internal Audit Impact (Continued)

Organizational Themes


- Operational consistency
- Formalized policy and procedures
- Risk awareness
- Right-size staffing/ succession planning

Auditee/ Stakeholder Response

- Positive mentality
- Cooperative
- Fully engaged
- Open to recommendations, including improvement opportunities and risk mitigation




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FY2017 Internal Audit Status: Completed, Current, and Planned

Project	Department	Status
HR Benefits	Talent Management	Completed
Risk Assessment Refresh	Organization-Wide	Completed
Inventory Management	Finance	Reporting
Procurement (Finance) and P-Card Management	Finance	Fieldwork
Procurement (Engineering) and P-Card Management	Engineering	Planned
Management Action Plan Evaluation	Organization-Wide	Planned
FY2018 Audit Plan	Various	Planned



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Proposed Internal Audit Plan: FY2018

AUDIT DETAILS			RISK ANALYSIS			AUDIT PLAN
Department	Audit Area	Preliminary Audit Topics (Scope / Objectives)	Overall Likelihood	Overall Impact	Overall Risk	Audit/ Review Period
Information Technology	IT: Network Security/ Cybersecurity	* Evaluate the effectiveness of network security and cybersecurity policies, standards and procedures and their alignment with IT security architecture. * Assess processes/ risks surrounding: -- Firewalls -- Password management -- Encryption of sensitive data -- Attack prevention -- Backups -- Incident response -- Vulnerability management -- Penetration test follow-up	H	H	H	FY2018, Q1
Enterprise-Wide	Corporate Governance: Ethics Function	* Evaluate the Corporate Ethics function. * Assess processes/ risks surrounding: -- Communication -- Monitoring -- Compliance	M	M	M	FY2018, Q2
Operations	Treatment Plants	* Evaluate a sample of treatment plants for consistent and adequate processes. * Assess processes/ risks surrounding: -- Process/ system inputs & outputs -- Physical security -- Plant management -- Systems interfacing -- Chemical purchasing -- Reporting -- Warehousing	H	H	H	FY2018, Q3
Finance & Accounting	Customer Care: Billing, Mail Center & Payments, A/R & Delinquent Accounts (x3)	* Evaluate the billing, mail center & payments, and A/R & delinquent processes from start to finish. * Assess processes/ risks surrounding: -- Billing completeness and accuracy -- Process redundancies (e.g. 4 Model process) -- Process/ system inputs & outputs -- Staffing utilization -- Jurisdictional compliance -- Operation efficiencies	H	H	H	FY2018, Q4
All	Update Risk Assessment & Plan	Annual refresh and reassessment: Review the existing Audit Universe to determine whether any organizational changes impact the processes identified or ratings.	N/A	N/A	N/A	FY2018, Q2
All	Audit Monitoring	Evaluating management action plans to determine if observations have been addressed.	N/A	N/A	N/A	FY2018, Q2, Q4
All	Administration	Board meetings; management team meetings; status reporting; etc.	N/A	N/A	N/A	On-Going
All	Special Projects	Management requests; special projects/investigations/consulting assignments	N/A	N/A	N/A	On-Going

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Proposed Internal Audit Plan: FY2019

AUDIT DETAILS			RISK ANALYSIS			AUDIT PLAN
Department	Audit Area	Preliminary Audit Topics (Scope / Objectives)	Overall Likelihood	Overall Impact	Overall Risk	Audit/ Review Period
Information Technology	IT: Disaster Recovery	* Evaluate emergency plans and procedures surrounding the IT environment and infrastructure. * Assess processes/ risks surrounding: -- Response -- Assets -- Mitigation -- Locations -- Recovery -- Pair with operational and IT functions	H	H	H	FY2019, Q1
Enterprise-Wide	Business Continuity & Disaster Recovery (Operations)	* Evaluate emergency plans and procedures. * Assess processes/ risks surrounding: -- Response -- Recovery -- Mitigation -- Pair with operational and IT functions	H	H	H	FY2019, Q2
Talent Management	Safety	* Evaluate HRSD's safety function and processes. * Assess processes/ risks surrounding: -- Efficiency and effectiveness -- Risk awareness and controls -- Safety environment/ communication -- Physical security -- Compliance	M	H	H	FY2019, Q3
Water Quality	* Regulatory/ Reporting (e.g. Water, Air, Solids, Nutrients) * Quality Assurance (Accreditation) (x2)	* Evaluate HRSD's regulatory, reporting, and compliance functions. * Assess process/ risks surrounding: -- Preparation and communication processes -- Exception reporting and remediation -- Internal and external reporting -- Tracking/ monitoring	H	H	H	FY2019, Q4
All	Update Risk Assessment & Plan	Annual refresh and reassessment: Review the existing Audit Universe to determine whether any organizational changes impact the processes identified or ratings.	N/A	N/A	N/A	FY2019, Q2
All	Audit Monitoring	Evaluating management action plans to determine if observations have been addressed.	N/A	N/A	N/A	FY2019, Q2, Q4
All	Administration	Board meetings; management team meetings; status reporting; etc.	N/A	N/A	N/A	On-Going
All	Special Projects	Management requests; special projects/investigations/consulting assignments	N/A	N/A	N/A	On-Going

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Discussion and Questions




9

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PASSIONATE TEAMS
PROVEN RESULTS



10




Supplemental Information: Audit Universe (High Risk)

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Background		Refresh			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Overall Likelihood	Overall Impact	Overall Risk	Last Audited	Audit Year
Engineering	Design & Construction: CIP Project Management	H	H	H	FY2016	FY2016
Engineering	Design & Construction: Procurement Process	H	H	H	N/A	FY2017
Engineering	Design & Construction: Emergency Repairs	H	H	H	N/A	TBD
Finance & Accounting	Accounting: Debt Management	H	H	H	N/A	TBD
Finance & Accounting	Customer Care: Billing	H	H	H	N/A	FY2018
Finance & Accounting	Procurement: Process	H	H	H	FY2017	FY2017
Information Technology	IT: Applications (e.g. ERP, GIS, SCADA, CMMS, CC&B, and other)	H	H	H	N/A	TBD
Information Technology	IT: Network Security/Cybersecurity	H	H	H	N/A	FY2018
Information Technology	IT: Disaster Recovery	H	H	H	N/A	FY2019
Operations	Electrical & Energy Management	H	H	H	N/A	TBD
Operations	Treatment Plants	H	H	H	N/A	FY2018
Water Quality	Regulatory/Reporting (e.g. Water, Air, Solids, Nutrients)	H	H	H	N/A	FY2019
Water Quality	Quality Assurance (Accreditation)	H	H	H	N/A	FY2019
Water Quality	SWIFT Program	H	H	H	N/A	TBD
Enterprise-Wide	Business Continuity & Disaster Recovery (Operations)	H	H	H	N/A	FY2019
Engineering	Asset Management	M	H	H	N/A	TBD
Engineering	Planning & Analysis	H	M	H	N/A	TBD
Finance & Accounting	Accounting: Cash Management and Investments	M	H	H	N/A	TBD
Talent Management	Safety	M	H	H	N/A	FY2019
Enterprise-Wide	Insurance (Risk Management)	H	M	H	N/A	TBD

11



Supplemental Information: Audit Universe (Moderate/ Low Risk)

Expertise that Works

Background		Refresh			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Overall Likelihood	Overall Impact	Overall Risk	Last Audited	Audit Year
Finance & Accounting	Accounting: General Accounting, Financial Reporting, and Process	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Payroll	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Accounts Payable	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Fixed Assets	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Revenue/Accounts Receivable	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Grants Management	M	M	M	N/A	TBD
Finance & Accounting	Customer Care: Mail Center & Payments	M	M	M	N/A	FY2018
Finance & Accounting	Customer Care: A/R & Delinquent Accounts	M	M	M	N/A	FY2018
Finance & Accounting	Procurement: P-Card Administration	M	M	M	FY2017	FY2017
Finance & Accounting	Procurement: Contract Management	M	M	M	N/A	TBD
Information Technology	IT: Data Management and Operations	M	M	M	N/A	TBD
Information Technology	IT: SDLC and Change Management	M	M	M	N/A	TBD
Information Technology	IT: Access Provisioning/De-Provisioning	M	M	M	N/A	TBD
Information Technology	IT: Governance	M	M	M	N/A	TBD
Information Technology	IT: Vendor and Contractor Management	M	M	M	N/A	TBD
Information Technology	IT: Data Center Physical Security and Environmental Controls	M	M	M	N/A	TBD
Operations	Support Systems: Facilities Management	M	M	M	N/A	TBD
Operations	Support Systems: Fleet	M	M	M	N/A	TBD

12



Supplemental Information: Audit Universe (Moderate/ Low Risk)

Background		Refresh			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Overall Likelihood	Overall Impact	Overall Risk	Last Audited	Audit Year
Operations	Water Technology & Research	M	M	M	N/A	TBD
Operations	Inventory	M	M	M	FY2017	FY2017
Talent Management	HR: Recruiting/Onboarding/Offboarding	M	M	M	N/A	TBD
Talent Management	HR: Compensation and Benefits	M	M	M	FY2017	FY2017
Water Quality	BioSolids (Special Project)	M	M	M	FY2016	FY2016
Water Quality	Operations	M	M	M	N/A	TBD
Enterprise-Wide	Corporate Governance	M	M	M	N/A	FY2018
Enterprise-Wide	Corporate Policies and Procedures	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Budgeting	M	L	L	N/A	TBD
Finance & Accounting	Customer Care: Call Center	L	M	L	N/A	TBD
Information Technology	IT: Mobile	M	L	L	N/A	TBD
Operations	Support Systems: Machine Shop and Carpentry Shop	L	M	L	N/A	TBD
Talent Management	HR: Strategy	M	L	L	N/A	TBD
Talent Management	Organizational Development & Training	M	L	L	N/A	TBD
Water Quality	Permitting Operations	M	L	L	N/A	TBD
Enterprise-Wide	Physical Security	M	L	L	N/A	TBD
Enterprise-Wide	Media & Public Relations	M	L	L	N/A	TBD
Enterprise-Wide	Legal Operations (Managing Attorneys)	L	L	L	N/A	TBD



Finance Committee Meeting

February 28, 2017

Agenda

- SC&H
- Budget Guidance
- Revenue Policy
- Financial Policy
- Conclusion

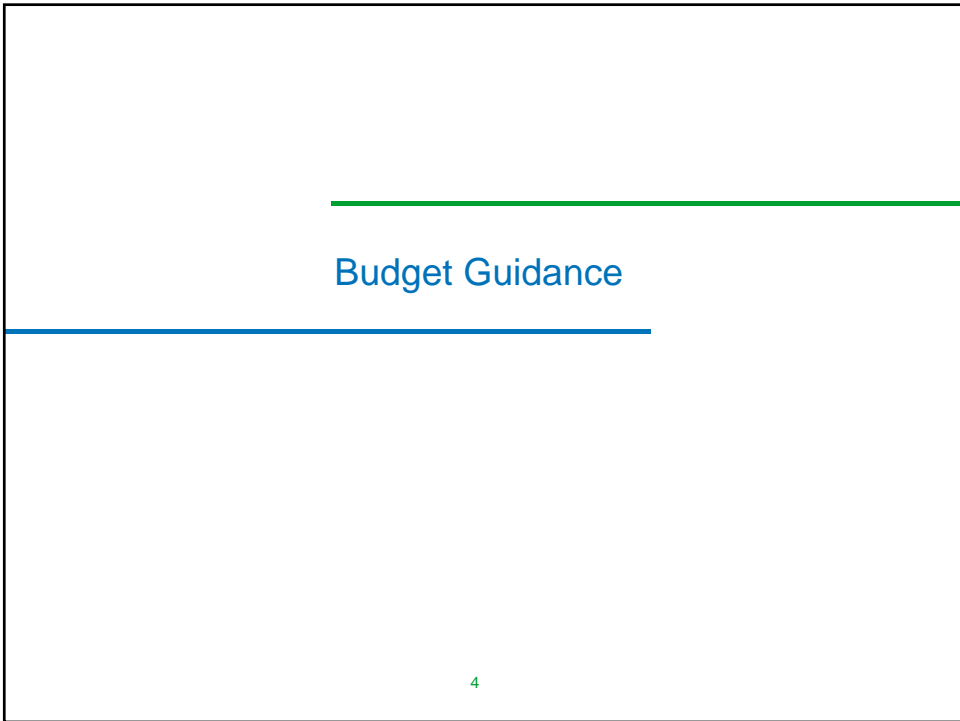




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SC&H

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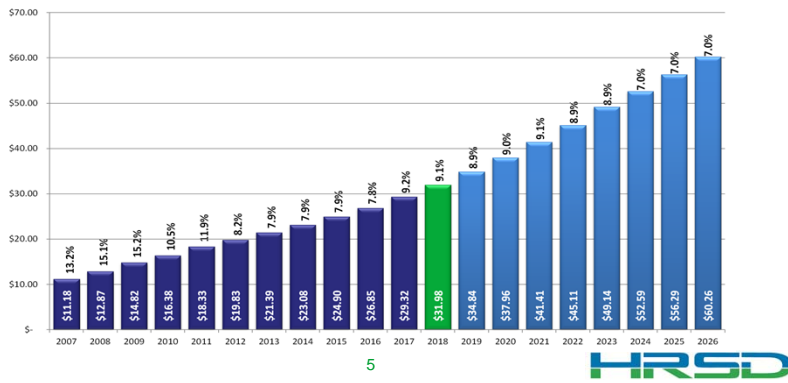
Budget Guidance

This slide features a large rectangular frame. A green horizontal line is positioned near the top, and a blue horizontal line is positioned near the bottom. The text "Budget Guidance" is centered between these two lines. The number "4" is centered at the bottom of the frame.

Budget Guidance

- Affordability study = \$125k
- SC&H = \$215k + \$35k contingency = \$250k
- Proposed FY18 Rate Increase = 9.1%

Average Monthly Bill and Annual Rate Increases



New Revenue Policy

Purpose of Revenue Policy

- Aggregate current policies into one Commission approved document
- Provides framework and consistency for financial decisions
- Defines key terms

7



Rate Philosophy

- **Rational Nexus Criteria**
Link between the services provided to a user and the fee or rates charged for that service
- Uniform rate structure regardless of location
- Cost differentiated by type of waste
- We charge and collect for services provided

8



Policy Defines Key Rates

- Domestic Quality Wastewater
- High Strength or Unusual Wastes

Surcharge Rates represent
Marginal/Incremental Costs

BASE COST includes Fixed and
Variable Costs

The diagram shows four cylinders representing different wastewater components: BOD (Biochemical Oxygen Demand), TSS (Total Suspended Solids), TN (Total Nitrogen), and TP (Total Phosphorus). A blue arrow points upwards from the base of the cylinders, and a green arrow points upwards from the top of the cylinders. The base is labeled 'Residential Concentrations' and the top is labeled 'High Strength'.

9

Policy Defines Key Rates (cont.)

- Facility Charges
- **Collection System Connection Fee**
– Under development

$$\frac{\text{Net Replacement Value}}{\text{HRSD's Plant Capacity}} \times \frac{\text{Meter Size}}{\text{Average Flow}} =$$

Water Meter Size	Facility Charge
5/8-Inch	\$ 1,895
3/4-Inch	4,830
1-Inch	8,170
1 1/2-Inch	17,260
2-Inch	30,510
3-Inch	70,800
4-Inch	129,660
6-Inch	269,610
8-Inch	542,680
10-Inch	862,550
12-Inch	1,259,520
14-Inch	1,734,700
16-Inch	2,289,010

10

Commission Policy - Decision Points

- **Small Communities Cost Recovery**
 - Confirm “Average Metro Locality Collection System Charges”
- **Financial Forecast**
 - Confirm “conservative approach”
- **Collections**
 - “Monitor all collections” and “equitably administered”
 - Or, aggressively pursue?
 - Ex. Mathews, sewer only customers
 - Cost of collections shall not exceed the marginal incremental revenue and not be a large percentage of the amount to be collected

11



Unmetered Accounts (Sewer-Only)

- As of Jan 31, for all sewer-only accounts
 - **\$173,800** was aged > 31 days (from bill date)

Two Largest Sewer Only Accounts

- **Mathews County**
 - 263 accounts
 - 14% of customers owe a balance > \$500
- **Mountain Lake (private water system)**
 - 104 accounts
 - 9% of customers owe a balance > \$500

Options

- Real Estate Lien
- Insert plug in sewer line
- Make landowner responsible for bills rather than tenants

12

12



Financial Policy Update

13

Purpose

- Last revised March 2015
- Consistency with 2016 Amended and Restated Subordinate Trust Agreement
- Update investment portion with how PFM (Financial Advisor) is managing HRSD funds

14

HRSD

Key Investment Changes

- Modified benchmarks
- Redefined Asset Classes (Retiree Health Trust – OPEB)
 - Growth Assets – capital appreciation
 - Income Assets – dividend producing
 - Real Return Assets – returns after inflation
- Provides different framework

Asset Classes	Asset Range	Weightings Target
Domestic Equity	23% - 43%	33%
International Equity	11% - 31%	21%
REITs	0% - 12%	3%
Inflation Hedge	0% - 10%	3%
Fixed Income	25% - 65%	40%
Cash Equivalent	0% - 20%	0%

17



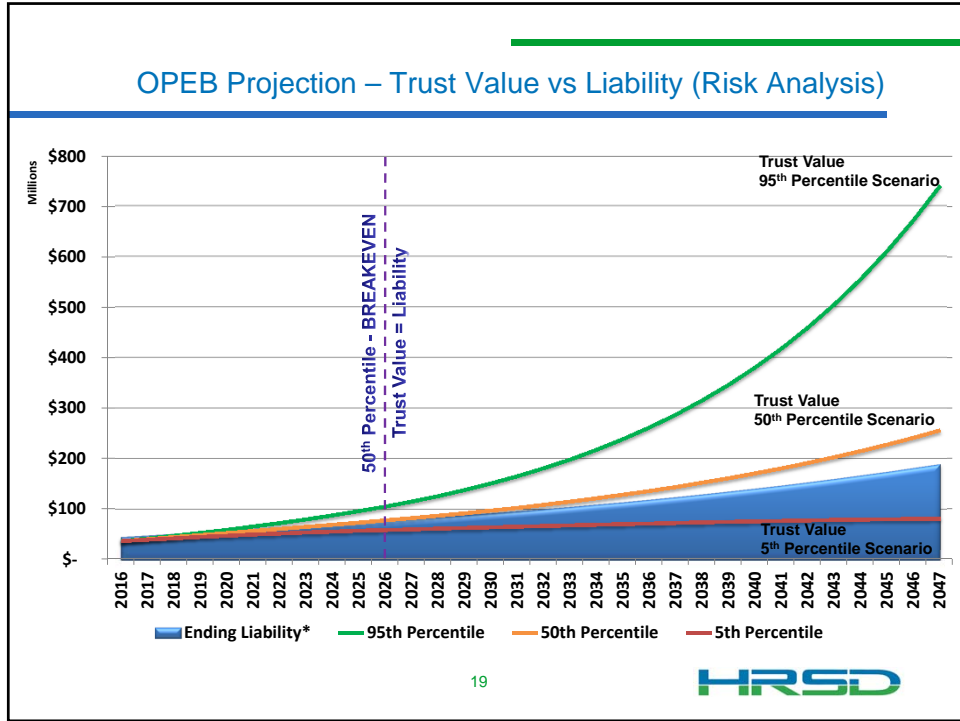
OPEB Investment Targets – 60% Growth, 40% Income

Target = 6% growth annually (*Discount Rate*)

Asset Classes	Asset Range	Weightings Target
Growth Assets		
Domestic Equity	19% - 59%	39%
International Equity	1% - 41%	21%
Other	0% - 10%	0%
Income Assets		
Fixed Income	20% - 60%	40%
Other	0% - 10%	0%
Real Return Assets		
	0% - 20%	0%
Cash Equivalentents		
	0% - 20%	0%

18



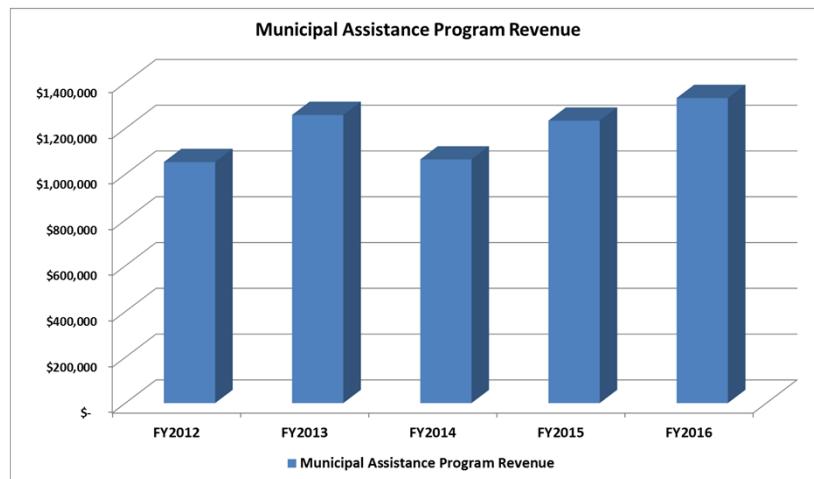


- ### Next Steps
- Committee provides feedback by Mar 28
 - Final draft submitted April 25
 - Commission votes on May 23
- 20
-

Questions

21

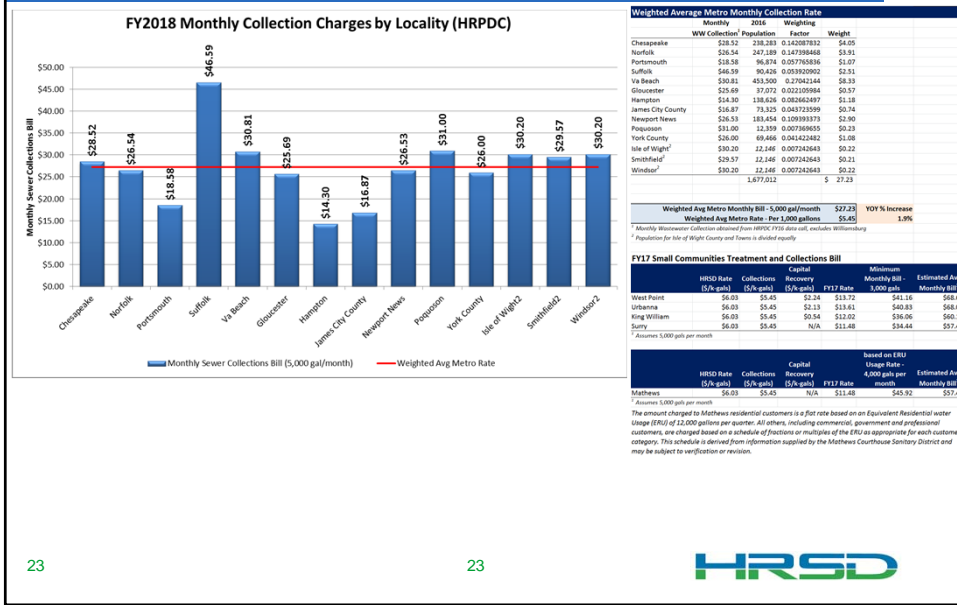
Municipal Assistance Program Revenue



22



Weighted Average Metro Monthly Collection Rate

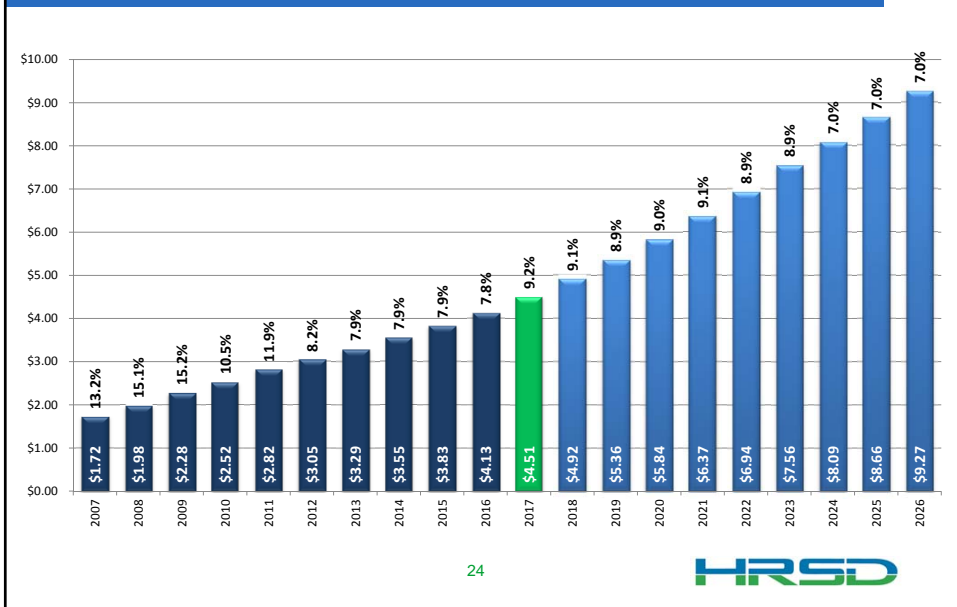


23

23



Historical Wastewater Rate per ccf



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1.0 Purpose and Need

The purpose of this revenue policy is to ensure that there is sufficient revenue to support direct and indirect operating, capital, reserves and current and future debt service costs.

2.0 Definitions

- 2.1** Collection System Connection Fee: TBD
- 2.2** Domestic Quality Wastewater: Defined in accordance with HRSD's Domestic Wastewater Survey that specifies the primary pollutants through sampling and the corresponding concentration limits for domestic wastewater.
- 2.3** Facility Charges: Charges to cover the cost of treatment and conveyance capacity consumed by new development or redevelopment. Facility charges are applied to any sewer or sewer system discharging into HRSD facilities and any increase to existing service.
- 2.4** Hauled Wastewater: Wastewater transported to a wastewater treatment plant and discharged that is subject to a fee.
- 2.5** High Strength or Unusual Waste: Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Total Phosphorus (TP), and Total Kjeldahl Nitrogen (TKN) discharged waste requiring a Surcharge Rate that exceeds the concentrations published in the Rate Schedule or unusual wastes not covered by the Rate Schedule that may be considered separately and may be assigned a special rate.
- 2.6** HRSD Charges: Any and all charges or fees billed to customers for wastewater services provide by HRSD.
- 2.7** HRSD Collection System: All infrastructure conveying flow from homes, businesses and industries up to the Interceptor System in localities where HRSD owns or operates a collection system.
- 2.8** HRSD Enabling Legislation: The Commonwealth of Virginia 1960 Acts of the Assembly, c. 66 as amended

- 2.9** Interceptor System: Large pipelines conveying flow from the Collection System to the Wastewater Treatment Plant.
- 2.10** Rational Nexus Criteria: This ensures that there is a reasonable connection between HRSD Charges and the actual cost of operating the wastewater system. These criteria ensure: (1) the charges are not arbitrary, (2) the charges are equitable, and (3) the charges are not discriminatory.
- 2.11** Regional Sanitary Sewer System: All portions of the individual locality and HRSD wastewater collection and transmission systems and appurtenances thereto.
- 2.12** Surcharge Rate: Rates for high strength wastes to recover costs in direct proportion to volume and pollutant concentrations. Since the majority of HRSD's costs are fixed, surcharge rates are based on a marginal cost approach for the variable costs associated with the incremental costs to treat High Strength Wastes.
- 2.13** Wastewater Treatment Charges: Charges to convey and treat Domestic Quality Wastewater that are based on billed water consumption, an effluent wastewater meter, or a flat rate.

3.0 Guiding Principles

3.1 General

- 3.1.1** To the extent feasible, HRSD is a cost recovery enterprise and supports a uniform rate structure for interception and treatment regardless of which wastewater treatment plant a customer's wastewater is treated.
- 3.1.2** Wastewater Treatment and Collection Charges shall not be waived; however, payment extensions may be established for the collection of HRSD Charges.
- 3.1.3** All new connections shall pay an equitable share for the treatment and conveyance capacity consumed by their wastewater discharge to the Regional Sanitary Sewer System.

3.1.4 All rates shall be reviewed and revised (if required) annually and approved by the Commission as part of the annual budget process. Changes shall be publically advertised in accordance with the Enabling Act as well as posted on the HRSD web site.

3.1.5 Surcharge rates for high strength wastes are set to recover costs in direct proportion to volume and pollutant concentrations. Since the majority of HRSD's costs are fixed, surcharge rates are based on a marginal cost approach for the variable costs associated with the incremental costs to treat high strength wastes.

3.1.6 Facility Charges are an up-front charge proportional to the cost of treatment and conveyance capacity consumed by each new user. This charge ensures that there is not an unfair burden placed on existing users that would otherwise pay higher rates to expand the system to accommodate new growth. HRSD uses the Rational Nexus Criteria to derive facility charges.

3.1.7 HRSD will avoid dependence on temporary revenues such as grants to fund operating costs. One-time temporary revenues or grants should typically be used to fund capital projects.

3.2 Basis of charges

3.2.1 Wastewater Treatment Charges

3.2.1.1 HRSD shall establish rates based on the wastewater quality and one of the following factors:

3.2.1.1.1 Volume of water purchased by the customer (as recorded by a water meter)

3.2.1.1.2 Volume of effluent discharged to the sewer system (as recorded by an effluent meter)

3.2.1.1.3 A rate based on facility use and billing period.

3.2.1.1.4 A single family residential flat rate.

3.2.1.1.5 HRSD treatment plants are designed to treat domestic quality wastewater. Additional charges

may be assessed for wastewater with qualities that differ from the current definition of Domestic Quality Wastewater.

3.2.1.1.6 Minimum charges apply to all accounts, except as specified herein.

3.2.2 Facility Charges

3.2.2.1 HRSD shall establish Facility Charges for new connections based upon the size of the water meter serving the new connection. If the Locality does not offer a specific meter size, a combination meter is proposed or other similar scenario, the Facility Charge may be based on a calculated meter size using the AWWA M22 Sizing Water Service Lines and Meters manual. Additional special exceptions may be outlined in the Rate Schedule.

3.2.2.2 The Facility Charge for each meter size is based on the unit volume rate, which is the total net replacement value of all HRSD's assets divided by HRSD's total hydraulic capacity, times the average water consumption for each meter size.

3.2.2.3 HRSD reserves the right to establish facility charges for new connections based upon wastewater that differs from domestic quality wastewater and that consumes loading capacity in excess of capacity consumed by the equivalent volume of Domestic Quality Wastewater.

3.2.3 HRSD Collection System Maintenance Charges

3.2.3.1 HRSD may establish separate collection system maintenance charges for each Locality within the HRSD Collection System. A weighted average cost of HRSD Locality collection rates will be used to develop the collection rate annually. Localities that do not charge a Locality collection rate will be excluded from this calculation. The weighted average will be based on the latest population estimates provided by the Welden

Cooper Center for Public Service or other
Commonwealth designated demographics agency.

3.2.4 Hauled Wastewater

3.2.4.1 Charges are based on a common charge across all plants as derived from the Rate Model and are not subject to a minimum charge.

4.0 Procedures

4.1 Determining Costs:

4.1.1 The budgeted annual costs shall be used to calculate rates that will be in effect for the budget fiscal year.

4.1.2 Budgeted costs shall be loaded into a comprehensive rate model to allocate costs to applicable categories annually. The model shall allocate costs to volume and each pollutant identified in the current HRSD Domestic Wastewater Survey.

4.2 Determining Total Wastewater Volume:

The total volume of wastewater to be billed during a budget year shall be estimated based upon the water consumption trends within the HRSD service area.

4.3 Calculating Rates:

4.3.1 The model shall calculate a wastewater treatment rate based on total budgeted cost divided by the estimated volume of wastewater to be billed in the fiscal year. The rate shall be expressed in dollars per hundred cubic feet or per 1,000 gallons.

4.3.2 The model shall calculate the incremental cost to treat each additional pound of each pollutant in excess of the pounds of pollutants identified for Domestic Quality Wastewater in the current HRSD Domestic Wastewater Survey. The rates shall be expressed in dollars per milligrams per liter per hundred cubic feet of wastewater.

4.3.3 The new connection charges shall be calculated by dividing the replacement cost for all HRSD facilities by HRSD's total hydraulic capacity to obtain the replacement cost per gallon. This replacement cost per gallon shall be multiplied by the estimated flow expected from new connections and expressed in dollars per meter size. The average daily flows for each size water meter shall be determined using actual historical data from HRSD's meter database.

4.3.4 Flat Rate Accounts were established for single family residential accounts that did not have a water meters or that use a significant amount of water that is not discharged to the sanitary sewer. The Flat Rate is based on average residential water consumption for a 30-day period times the prevailing Wastewater Treatment Rate.

4.3.5 The minimum charge for all accounts will be specified in the Rate Schedule.

4.4 Implementation:

4.4.1 All rates shall be approved by the Commission as part of the annual budget process.

4.4.2 Rates shall be advertised for four consecutive weeks in a newspaper of general circulation within the District

4.5 Financial Forecast

HRSD will analyze water consumption, regional economic and population data periodically to identify any trends that may impact the long-range financial forecast. Based on this analysis, a conservative approach will be used to project revenues in the long-range financial forecast.

4.6 Collections

HRSD will monitor all collections to ensure they are equitably administered and are timely and accurate. The cost of collections shall not exceed the marginal incremental revenue and it should not be a large percentage of the amount to be collected.

Adopted: [date]

Revised: [date or N/A]

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5.0 Responsibility and Authority

- 5.1 The General Manager shall ensure the Commission reviews all rates annually as part of the annual budget process.
- 5.2 Rates may only be changed with an affirmative vote of a majority of the Commission at a legally noticed public meeting of the Commission.
- 5.3 The General Manager shall ensure any rate revisions are advertised and published in accordance with the HRSD enabling legislation.
- 5.4 The Director of Finance will present an updated Financial Forecast to the Commission and manage the update to the Rate Model on an annual basis.

Approved:

Frederick N. Elofson
Commission Chairman

Date

Attest:

Jennifer L. Cascio
Commission Secretary

Date

Rate Model Summary

HRSD's rate model uses a cost accounting process to allocate all operating costs to volume and each of four specific pollutants. The model designates each line item cost as fixed or variable. Fixed costs are those that are not influenced, in the short run, by volume or the quantity of pollutants in the wastewater being treated. These include for example, personnel costs, office, administrative, customer service, billing and collection expenses, and debt service. Conversely, variable costs are those that are affected by the volume and the amount of pollutants present; these include treatment plant expenditures for chemicals, electricity, fuel, and solids disposal. The rate model uses engineering criteria to allocate the variable costs to each of the four pollutants. Once the operating costs have been allocated, the model deducts miscellaneous revenues, includes a provision for bad debt, and derives rates for volume (\$/CCF) and high strength surcharges (\$/pound); the latter equates to HRSD's marginal or incremental cost attributable to treating each pollutant in excess of the amount present in typical domestic wastewater and is also presented as the equivalent \$ per mg/l per 100 CF to facilitate calculation by customers. Net fixed costs and the variable costs to treat the four pollutants present in typical domestic sewage are recovered via the volume rate and surcharges.

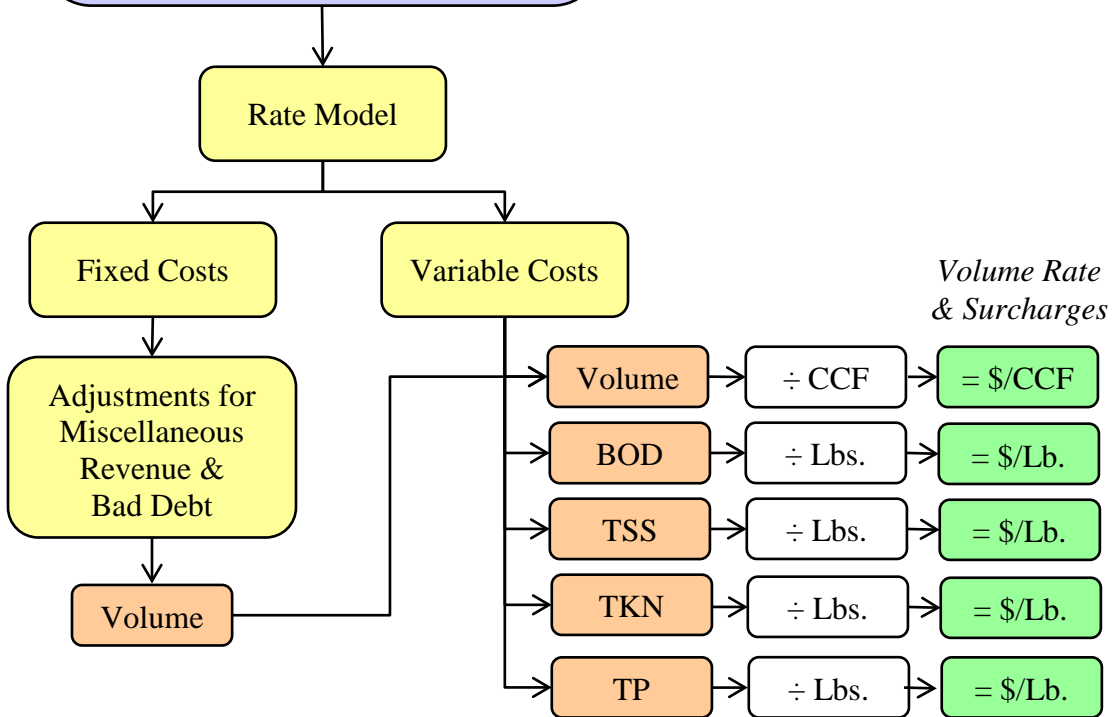
Adopted: [date]

Revised: [date or N/A]

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- Model Inputs**
- Annual Budget (All Costs, \$/Year)
 - Miscellaneous Revenues (\$/Year)
 - Provision for bad debt (%)
 - Billable flow (CCF/Year)
 - Pollutants treated (Lbs/Year)

Rate Model Schematic



1.0 PURPOSE AND NEED

The Hampton Roads Sanitation District (HRSD) was created in 1940 by the Virginia General Assembly as a political subdivision of the Commonwealth of Virginia and was established as a governmental instrumentality to provide for the public health and welfare. HRSD was created for the specific purpose of abating pollution in the Hampton Roads area of Virginia through the interception of existing wastewater outfalls, the construction of wastewater treatment facilities and the installation of interceptors throughout the service area.

HRSD operates under the direction of the Hampton Roads Sanitation District Commission (the Commission) comprised of eight members appointed by the Governor for staggered terms of four years.

Regulatory requirements to reduce nutrients, hydraulic expansion, aging infrastructure renewals and replacements, and increased treatment capacity are addressed through HRSD's Capital Improvement Program (CIP).

HRSD recognizes that one of the keys to sound financial management is the development of formal financial policy. This sentiment is echoed by bond rating agencies, investors and the Government Finance Officers Association.

This Financial Policy (Policy) is designed to help protect HRSD's financial resources by:

- a. Promoting sound financial management;
- b. Ensuring the legal and prudent use of HRSD's debt issuance authority; and
- c. Guiding HRSD and its managers in policy, investment and debt issuance decisions.

2.0 DEFINITIONS

Act. HRSD's enabling act is Chapter 66 of the Acts of Assembly of Virginia of 1960, as amended.

Annual Determined Contribution (ADC). The annual contribution requirement determined by an actuary for a defined benefit plan.—

Arbitrage. The simultaneous purchase and sale of an asset in order to profit from a difference in the price. It is a trade that profits by exploiting price differences of identical or similar financial instruments in different markets or in different forms. For the purposes of this Policy, Arbitrage refers to the difference between the interest paid on the tax-exempt securities and the interest earned by investing the security

COMMISSION ADOPTED POLICY
Financial Policy



Adopted: May 26, 2009

Revised: ~~March 24, 2015~~ February
28, 2017

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proceeds in higher-yielding taxable securities. ~~IRS regulations~~ *The Code* governs arbitrage on the proceeds from issuance of tax-exempt municipal securities.

Asset Allocation. An investment strategy that attempts to balance risk versus reward by adjusting the percentage of each asset in an investment portfolio according to the investor's risk tolerance, goals and investment time frame.

Balloon Maturity. A ~~later~~ maturity within an issue of bonds which contains a ~~disproportionately large~~ *twenty-five percent (25%) or more percentage* of the principal amount of the original issue.

Bankers' Acceptance. A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer.

Basis Swap. An agreement between two parties to exchange interest payments based on different variable-rate indices, e.g. SIFMA vs. LIBOR; a floating-to-floating swap.

Benchmark. A comparative base for measuring the performance or risk tolerance of an investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investments.

Bond Anticipation Note (BANs). Notes which are *generally repaid* from the proceeds of the issuance of long-term ~~bonds~~ *indebtedness*. ~~Typically issued for capital projects.~~

Broker. Brings buyers and sellers together for a commission.

Bullet Maturity. A maturity within an issue of bonds for which there are no principal and/or sinking fund payments prior to the stated maturity date.

Call Provisions. The terms of ~~the~~ *a* bond giving the issuer the right to redeem all or a portion of ~~a~~ *such* bond prior to its stated date of maturity at a specific price, usually at or above par.

Capital Appreciation Bonds. A municipal security on which the investment return on an initial principal amount is reinvested at a stated compounded rate until maturity. At maturity the investor receives a single payment (the "maturity value") representing both the initial principal amount and the total investment return.

Capital Asset. *A unit of property purchased by, constructed by or donated to HRSD that: (1) was acquired or produced and has a value of \$5,000 or more; and (2) has an economic useful life of a minimum of 60 months. ~~Assets constructed and paid by HRSD and subsequently transferred to a Locality are Locality Assets and will not be~~*

COMMISSION ADOPTED POLICY
Financial Policy



Adopted: May 26, 2009

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28, 2017

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~~capitalized.~~ Capital Assets must be capitalized and depreciated for financial statement purposes. Assets constructed and paid by HRSD that improve the performance of the Wastewater System and subsequently transferred to a Locality constitute Locality Assets and will not be capitalized by HRSD for any purpose.

Capital Improvement Program (CIP). ~~The CIP is HRSD's planned program involves expenditures to acquire or add assets of a relatively permanent nature of capital projects (not less than \$100,000), such as property, plant and equipment and related engineering, legal and construction services, and may consist of Capital Assets and Locality Assets. The CIP is typically for capital projects (not less than \$100,000), new facilities, expansions and improvements requiring engineering and/or construction services. Ten-year plan for major non-recurring facility, infrastructure, or acquisition expenditures generally that expand or improve HRSD and/or community assets. Projects included in the CIP include physical descriptions, implementation schedules, year of expenditure cost and funding source estimates, and an indication of HRSD Commission priorities and community benefits.~~

Capitalized Interest. A portion of the proceeds of a bond issue which is set aside to pay interest on ~~the same bond issue~~ *one or more bond issues* for a specific period of time. Interest is commonly capitalized for the construction period of the project.

Certificate of Deposit (CD). A time deposit with a specific maturity evidenced by a Certificate. Large-denomination CD's are typically negotiable.

Code. *The Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.*

Collateral. Securities, evidence of deposit or other property, which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

Commercial Paper (CP). Short-term, unsecured promissory notes issued by corporations or governments to finance receivables for a maturity specified by the purchaser that ranges from three days to 270 days. Notes are generally sold at a discount, and carry credit ratings issued by an NRSRO.

Competitive Sale. A sale/auction of securities by an issuer in which underwriters or syndicates of underwriters submit sealed bids to purchase the securities.

Constant Maturity Swap. An interest rate swap that is predicated upon the shape of the forward implied yield curve whereby counterparties exchange interest rate payments based on an anticipated future interest rate and a variable swap index rate. The interest rate on one leg of the swap is reset periodically but with reference

to a market swap rate rather than an index such as LIBOR. The other leg of the swap is generally a market index, such as LIBOR.

Continuing Disclosure. The principle that accurate and complete information material to a transaction or HRSD, which potential investors would likely consider material in making investment decisions with respect to the securities be made available on an ongoing basis. *Pursuant to Rule 15c2-12 promulgated by the SEC, underwriters of HRSD's bonds are obligated to obtain a Continuing Disclosure agreement (CDA) from HRSD prior to underwriting such bonds.*

Corporate Notes. Unsecured promissory notes issued by corporations to raise capital for a maturity that is longer than 270 days. Notes are generally sold at a discount, and carry credit ratings *issued* by an NRSRO.

Credit Enhancement. Credit support purchased by the issuer to raise the credit rating of a debt issue. The most common credit enhancements consist of bond insurance, direct or standby letters of credit, and lines of credit.

Dealer. Acts as a principal in all transactions, buying and selling for his own account.

Debenture. A bond secured only by the general credit of the issuer.

Debt Service Coverage Ratio – GAAP. *Calculated in accordance with HRSD's Senior Trust Agreement, ~~the~~ ratio determined by dividing the Net Revenues by ~~Annual Debt Service~~. In such calculation, ~~except that~~ funds spent on Locality Assets are considered an expense. Annual debt service will be based on actual principal and interest payments during the year (i.e., not accrual based).*

Debt Service Coverage Ratio - Adjusted. *Calculated in accordance with HRSD's Subordinate Trust Agreement, ~~the~~ ratio determined by dividing the Net Revenues by ~~Annual Debt Service~~. In such calculation, funds spent on Locality Assets may be excluded from the calculation of Net Revenues under the circumstances described ~~below~~ (see within the definitions of Net Revenues and Operating Expenses). Annual debt service will be based on actual principal and interest payments during the year (i.e., not accrual based).*

Debt Service Reserve Fund. The fund in which moneys are placed which may be used to pay debt service if ~~pledged~~ revenues *available for debt service* and ~~certain liquidity measures~~ *Credit Enhancements, if applicable,* are insufficient to *pay debt service on HRSD's bonds secured by a Debt Service Reserve Fund as it becomes due and payable.* ~~satisfy requirements defined in the Trust Agreement.~~

Deep Discount Bonds. Bonds which are priced for sale at a substantial discount from their face or par value.

Delivery versus Payment. Delivery of securities with an exchange of money for the securities. (See also Delivery versus Receipt)

Delivery versus Receipt. Delivery of securities with an exchange of a signed receipt for the securities. Also known as “free” delivery; (See also Delivery versus Payment).

Derivatives. A financial product whose value is derived from some underlying asset value.

Designation Policies. Outline how an investor's order is filled when a bond's maturity is oversubscribed when there is an underwriting syndicate. The senior managing underwriter and issuer decide how the bonds will be allocated among the syndicate. There are three primary classifications of orders which form the designation policy: Group Net orders; Net Designated orders and Member orders.

Discount. A bond that is issued for less than its par (or face) value, or a bond currently trading for less than its par value in the secondary market.

Diversification. A process of investing assets among a variety of security types by sector, maturity and quality rating.

Encumbrances. Commitments related to unperformed contracts for goods and services (i.e., purchase orders, contracts and commitments). Encumbrance accounting is utilized to the extent necessary to assure effective budgetary control and accountability and to facilitate effective cash planning and control.

Escrow. A fund established to hold moneys pledged and to be used to pay debt service on an ~~outstanding~~ *one or more series of HRSD's bonds or other indebtedness* ~~issue~~.

Federal Agency. Government sponsored/owned entity created by the U.S. Congress, generally for the purpose of acting as a financial intermediary by borrowing in the marketplace and directing proceeds to specific areas of the economy considered to otherwise have restricted access to credit markets, also referred to as Government Sponsored Enterprises or GSEs. The largest are GNMA, FNMA, FHLMC, FHLB, FFCB, and TVA.

Federal Funds Rate. The rate of interest at which Fed funds are traded. This rate is currently set by the Federal Reserve through open – market operations.

Federal Funds. Funds placed in Federal Reserve Banks by depository institutions in excess of current reserve requirements, and frequently loaned or borrowed on an overnight basis between depository institutions.

FINRA. *The Financial Industry Regulatory Authority.*

Forward Swap. A swap executed today, the exchange of interest payments on which starts at some future date (the Effective Date), based on rates and terms determined and agreed upon today. On the **Effective Date** of a Forward Swap begin net exchange of swap payments. On the **Trade Date** of the Swap:

- a. Enter into ~~forward~~ *Forward swap* ~~Swap~~ agreement
- b. Set terms of the ~~swap~~ *Swap*
- c. Pay commitment fees for ~~swap~~ *Swap* and bond insurance (if done in conjunction with a ~~Synthetic~~ *synthetic Forward* ~~forward~~ *R*efunding of bonds)

Interest Rate Cap. An option that pays its holder when and if the floating interest rate index is above the pre-determined fixed rate (strike price).

Interest Rate Collar. The simultaneous purchase and sale of an Interest Rate Cap and an Interest Rate Floor on a floating index.

Interest Rate Floor. An option that pays its holder when and if the floating interest rate index is below the pre-determined fixed rate (strike price).

Interest Rate Swap. A contract between two parties, referred to as “counterparties”, to exchange interest rate payments at specified dates in the future. One party under the swap contract normally makes payments based on a fixed rate while the other party makes payments based on a variable (floating) rate.

Internal Controls. Systematic measures (such as reviews, checks and balances, methods and procedures) instituted by an organization to: conduct its business in an orderly and efficient manner; safeguard its assets and resources; deter and detect errors, fraud, and theft; ensure accuracy and completeness of its accounting data; produce reliable and timely financial and management information; and ensure adherence to its policies and plans. An important concept in establishing appropriate internal controls is that the cost of the controls should not exceed their anticipated benefits.

Knock-in Option. An option the existence of which is conditional upon a pre-set trigger price trading before the option's designated maturity. If the trigger is not touched before maturity, then the option is deemed not to exist.

Letters of Credit. A bank credit facility wherein the bank agrees to lend a specified amount of funds for a limited term. *Letters of Credit may be used as Credit Enhancement for HRSD's indebtedness.*

Line of Credit. *A bank facility wherein the bank permits the borrower to access funds at any time, subject to a maximum loan balance.*

Liquidity. *The ability of ease with which an asset can be converted into cash without a substantial loss of value.*

~~**London InterBank Offered Rate (LIBOR).** LIBOR is the rate on U.S. dollar denominated deposits with maturities from one day to 12 months transacted between banks in London. LIBOR is generally the benchmark floating index in the taxable or corporate swap market.~~

~~**Liquidity.** The ability of ease with which an asset can be converted into cash without a substantial loss of value.~~

Locality Assets. *Assets constructed and paid for by HRSD and subsequently transferred to a Locality. A Commission Resolution is required to exclude these costs from the calculation of the Operating Expenses for purposes of the calculation of the Debt Service Coverage Ratio – Adjusted as an Operating Expense.*

London InterBank Offered Rate (LIBOR). *LIBOR is the rate on U.S. dollar denominated deposits with maturities from one day to 12 months transacted between banks in London. LIBOR is generally the benchmark floating index in the taxable or corporate swap market.*

Management Fee. The fixed percentage of the gross spread which is paid to the senior managing underwriter for the structuring phase of a ~~transaction~~ *bond issue.*

Market Value. The price at which a security is trading and could presumably be purchased or sold.

Master Repurchase Agreement. A written contract covering all future transactions between the parties to repurchase—reverse repurchase agreements that establishes each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller borrower.

Maturity. The date upon which the principal or stated value of an investment becomes due and payable.

Members. Underwriters in a syndicate other than the senior underwriter.

Moody's. *Moody's Investors Service, Inc. is a NRSRO.*

Nationally Recognized Statistical Rating Organization (NRSRO). A credit rating agency which issues credit ratings that the SEC permits other financial firms to use

for certain regulatory purposes. Examples include Moody's ~~Investors Service, and S&P. Standard & Poor's and Fitch Ratings.~~

Negotiated Sale. A method of sale in which the issuer chooses an underwriter to negotiate terms pursuant to which such underwriter will purchase and market the bonds.

Net Revenues. *All revenues received by HRSD less Operating Expenses.*

Nominal Interest Rate. The interest rate before taking inflation into account. Generally, it is the stated or quoted rate in a loan or deposit agreement.

Normal Cost. The annual current cost of a member's future retirement benefit.

Operating Expenses. *As defined by the Act and as used in the Senior Trust Agreement, operating expenses includes the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves therefor as may be provided in the resolution providing for the issuance or such revenue bonds or in the trust agreement securing the same. As ~~defined~~ defined in the Subordinate Trust Agreement, ~~Current expenses~~ Operating Expenses includes those expenses ~~paid by HRSD that may be~~ required to pay the cost of maintaining, repairing and operating the Wastewater System, including, but not limited to, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the Wastewater System, insurance premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program. Operating Expenses shall exclude allowance for depreciation and amortization and expenditures for extraordinary maintenance or repair or improvements. Operating Expenses shall also exclude expenses for improvements that will not be owned by HRSD but which will, in the reasonable determination of the Commission, as evidenced by a resolution thereof, maintain or improve the integrity of the Wastewater System.*

Original Issue Discount. The amount by which the original par amount of an issue exceeds its public offering price at the time it is originally offered to an investor.

Percentage of (% of) LIBOR Swap. A swap whose floating rate is reset based on a percentage of a taxable rate (e.g. 67% of LIBOR) rather than a true tax-exempt rate, e.g. the SIFMA Index. A Percentage of LIBOR swap generally carries a lower expected or nominal fixed rate than a comparable SIFMA swap to compensate the fixed payer (issuer) for the assumption of basis and tax risk.

Portfolio. Collection of securities held by an investor.

Premium. The difference between the higher price paid for a fixed-income security and the security's face amount at issue.

Present Value. The current value of a future cash flow.

Primary Dealer. A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. Primary dealers include SEC, registered securities broker-dealers, banks, and a few unregulated firms.

Private Placement. The ~~original~~ placement of an issue *of indebtedness directly* with one or more *qualified or institutional* investors ~~versus being publicly offered or sold~~.

Prudent Person Rule. An investment standard outlining the fiduciary responsibilities of public funds invested relating to investment practices.

Rate Lock. An interest rate hedge that is cash-settled at maturity based on the prevailing level of an agreed upon underlying index. (e.g. the SIFMA 'AAA' scales)

Rate of Return. The yield obtainable on a security based on its purchase price or its current market price. This may be the amortized yield to maturity on a bond or the current income return.

Rebate. A requirement imposed by the Tax Reform Act of 1986 whereby the issuer of tax exempt bonds must pay the IRS an amount equal to its profit earned from investment of tax-exempt bond proceeds at rates exceeding the tax exempt borrowing rate. The tax-exempt borrowing rate (or bond yield) is calculated pursuant to the IRS code together with all income earned on the accumulated profit pending payment.

Repurchase Agreement (RP or REPO). An agreement under which the holder of securities sells these securities to an investor with a contract to repurchase the securities at a fixed price on a fixed date. The security "buyer" in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate him for this.

Revenue (Limited Liability) Bonds. Bonds issued by HRSD secured by a specific revenue pledge of rates, rents or fees.

Revenue Anticipation Notes (RANS). Notes issued in anticipation of receiving revenues at a future date.

Safekeeping. A service to customers rendered by banks for a fee whereby securities and valuables of all types and descriptions are held in the bank's vaults for protection.

SEC Rule 15C3-1. See Uniform Net Capital Rule.

Securities and Exchange Commission (SEC). Agency created by Congress to protect investors in securities transactions by administering securities legislation.

Securities Industry and Financial Markets Association (SIFMA). *SIFMA is a high grade market index of 7-day variable rate demand notes that is produced by Municipal Market Data. SIFMA is the benchmark swap floating index in the tax-exempt swap market.*

Self-Liquidity. *A term used in connection with variable rate bond financings whereby the issuer or conduit borrower agrees to repurchase with its own capital bonds that have been tendered but not yet remarketed without procuring a third-party liquidity facility. In this instance, the issuer or conduit borrower uses its own funds to purchase securities.*

Selling Groups. The group of securities dealers who participate in an offering not as underwriters but rather who receive securities less the selling concession from the managing underwriter for distribution at the public offering price.

Senior Bonds. *Bonds and other indebtedness issued by HRSD secured by the Senior Trust Agreement.*

Senior Trust Agreement. *The Trust Agreement, dated March 1, 2008, as the same may be amended and supplemented from time to time, between HRSD and a trustee. The Senior Trust Agreement secures HRSD's Senior Bonds.*

Serial Bond. A bond issue in which a portion of the outstanding bonds matures at regular intervals until eventually all of the bonds have matured.

~~**Securities Industry and Financial Markets Association (SIFMA).** *SIFMA is a high grade market index of 7-day variable rate demand notes that is produced by Municipal Market Data. SIFMA is the benchmark swap floating index in the tax-exempt swap market.*~~

~~**Self-Liquidity.** *A term used in connection with variable rate bond financings whereby the issuer or conduit borrower agrees to repurchase with its own capital bonds that have been tendered but not yet remarketed without procuring a third-party liquidity facility. In this instance, the issuer or conduit borrower uses its own funds to purchase securities.*~~

Standard & Poor's (S&P). *Standard & Poor's Global Ratings is a NRSRO.*

Stripped Security. Security that has been transformed from a principal amount with periodic interest coupons into a series of zero-coupon bonds, with the range of maturities matching the coupon payment dates and the redemption date of the principal amount.

Subordinate Bonds. *Bonds and other indebtedness issued by HRSD and secured by the Subordinate Trust Agreement.*

Subordinate Trust Agreement. *The Trust Agreement, dated October 1, 2011, as amended and restated as of March 1, 2016, as the same may be amended and supplemented from time to time, between HRSD and a trustee. The Subordinate Trust Agreement secures HRSD's Subordinate Bonds.*

Swaption. An option on a forward swap. The purchaser of a swaption (counterparty) has the right, but not the obligation, to compel the swaption seller (usually an issuer) to enter into a pre-negotiated swap agreement at some future date (exercise date). In exchange for this right, the swaption purchaser pays the swaption seller a premium amount. This amount can be paid up front, at some future date, or as an annuity over time.

Syndicate Policies. The contractual obligations placed on the underwriting group relating to distribution, price limitations and market transactions.

Term Bonds. Bonds from the same issue that share the same maturity dates and interest rate. A term bond is the opposite of a serial bond, which has various maturity schedules at regular intervals until the issue is retired.

Termination Payment Risk. The risk that an issuer is forced to liquidate a swap when it owes a termination payment to its counterparty.

Treasury Bills. A non-interest bearing discount security issued by the U.S. Treasury to finance the national debt. Most bills are issued to mature in three months, six months, or one year.

Treasury Bonds. Long-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities of more than 10 years.

Treasury Inflation Protected Securities ("TIPS"). *The principal of a TIPS increases with inflation and decreases with deflation, as measured by the Consumer Price Index. When a TIPS matures, you are paid the adjusted principal or original principal, whichever is greater.*

Treasury Notes. Medium-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities from two to 10 years.

Trust Agreements. *Collectively, the Senior Trust Agreement and the Subordinate Trust Agreement.*

Underwriter. A dealer that purchases new issues of municipal securities from the Issuer and resells them to investors.

Underwriter's Discount. The difference between the price at which bonds are bought by the Underwriter from the Issuer and the price at which they are offered to investors.

Underwriter's Expenses. Compensates senior managers for out-of-pocket expenses including: underwriter's counsel; DTC charges, travel, syndicate expenses, dealer fees, overtime expenses, communication expenses, computer time and postage.

Uniform Net Capital Rule. SEC requirement that member firms as well as nonmember broker-dealers in securities maintain a maximum ratio of indebtedness to liquid capital also called net capital rule and net capital ratio. Indebtedness covers all money owed to a firm, including margin loans and commitments to purchase securities, one reason new public issues are spread among members of underwriting syndicates. Liquid capital includes cash and assets easily converted into cash.

Variable Rate Debt or VRD. An interest rate on a security which changes at intervals according to an index or a formula or other standard of measurement as stated in the bond contract.

Yield. The rate of annual income return on an investment, expressed as a percentage. Income/current yield is obtained by dividing the current dollar income by the current market price for the security. Net yield or yield to maturity is the current income yield minus any premium above par or plus any discount from par in purchase price, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond.

3.0 **GUIDING PRINCIPLES**

RESERVES.

An important metric of HRSD's financial flexibility is its liquidity position as measured by available cash and liquid investments. ~~These reserve policies identify and segregate amounts of cash and investments.~~ *Setting a minimum liquidity position* for

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known risks and obligations ~~and set minimum~~ will provide funding ~~goals that may be used~~ in emergency or other unexpected situations as they arise. The reserves represent an earmarking, for budgetary and Policy purposes, of cash and liquid investments (current and non-current). These reserves are in addition to existing ~~legal~~ reserves required by the Trust Agreements, *if any*, and any funds earmarked for capital improvements or budget carryover amounts.

- a. **General Reserve.** ~~The General Reserve~~ HRSD will ~~be maintained in an amount necessary~~ maintain sufficient liquidity to ensure adequate working capital for HRSD's operations. ~~The General Reserve at the end of a fiscal year will not be less than 270 or more than 365 days of the current year's projected operating and maintenance expenses less depreciation. This reserve~~ *These funds are* is intended to help HRSD cover unanticipated expenses that cannot be paid from the current fiscal year's budgetary resources. *Liquidity will be determined in terms of Days Cash on Hand which will be measured by current and non-current cash and investments, plus any restricted cash and investments, if available for general system purposes, divided by operating and maintenance expenses less depreciation, divided by 365. This calculation will exclude accrued debt service for the next fiscal year and all funds in the Risk Reserve and Renewal and Replacement Reserve, described below. Days Cash on Hand at the end of a fiscal year may not be less than 270 or more than 365 days.*

In the event the ~~General Reserve~~ *cash and investments are* is used ~~and reduced to a level that is less than the 270 day minimum~~ to provide funding for unanticipated expenses *and the Days Cash on Hand falls below the 270 day minimum*, the General Manager will submit a plan in writing to the Commission that will restore the ~~General Reserve~~ *Days Cash on Hand* to the policy level over a period not to exceed five fiscal years.

- b. **Risk Reserve.** HRSD maintains a self-insurance program for some of its risk exposures.

HRSD will maintain a Risk Reserve as of the end of the fiscal year of not less than 25 percent of projected annual self-insured claims costs for known, retained risks.

In the event the Risk Reserve is used and reduced to a level that is less than the 25 percent minimum to provide funding of unanticipated self-insured expenses, the General Manager will submit a plan in writing to the Commission that will restore the reserve to the policy level over a period not to exceed five fiscal years.

- c. **Renewal and Replacement Reserve.** *As required by the Act, HRSD's HRSD's Trust Agreements requires HRSD to* establish a reserve to finance "anticipated renewals, replacements, extensions, additions and extraordinary repairs" to wastewater system the extent needed. ~~These policies mirror the Trust Agreement requirement.~~ Under the Trust Agreement, *the* funding *of* the *Renewal and Replacement* Reserve is discretionary ~~based on management's judgment.~~

BUDGETARY PRINCIPLES.

- a. **Long-Range Financial Forecast.** Each fiscal year the General Manager will submit to the Commission a 20-year financial forecast of anticipated annual revenues and expenses and capital improvements.

This forecast will serve as the foundation for the General Manager's annual budget proposal to the Commission.

- b. **Annual Operating Budget Proposals.** The Commission is required to adopt an operating budget no later than June 30 each fiscal year.

The Commission will adopt an operating budget that:

- (1) Is structurally balanced whereby current budgetary revenues are sufficient to meet current budgetary expenses (those that are ongoing in nature);
- (2) Considers the affordability of rates within the context of local wealth and income indicators;
- (3) Is at a level necessary to ensure the adequate maintenance and operations of the wastewater system;
- (4) Is sufficient to meet Actuarially Determined Contribution (ADC) for HRSD's defined benefit plans;
- (5) Includes amounts necessary to maintain the required reserves in amounts at least equal to the minimum balances as defined in this Policy;
- (6) Enables HRSD to meet the debt service coverage targets defined in these policies; and

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(7) Annually funds at least 15 percent of its capital improvement program in cash.

- c. **Capital Improvement Program (CIP).** Each year HRSD will adopt a ten-year CIP that identifies projects to be undertaken over next ten years to meet projected needs for infrastructure renewal, expansion, replacing old or new facilities.

A capital project by definition involves expenditures to acquire or add assets of a relatively permanent nature such as property, plant and equipment. The CIP is typically for capital projects (not less than \$100,000), new facilities, expansions and improvements requiring engineering and/or construction services.

~~Projects included in the CIP will have a multi-year dollar value of not less than \$100,000. Those projects financed with debt will have aggregate useful lives that exceed the final maturity of any related permanent debt financing by at least 120 percent.~~

- d. **Budgetary Accounting and Control.** HRSD operates in accordance with annual operating and capital budgets prepared on a basis of accounting that is different from generally accepted accounting principles.

The operating budget is adopted by department, with budgetary controls exercised administratively by management at the department level. The General Manager is authorized to transfer funds among departments without further approval by the Commission. Appropriations lapse at the end of the fiscal year. Valid, outstanding encumbrances (those for which performance under a contract is expected in the next year) are re-appropriated without further approval by the Commission and become part of the subsequent year's budget.

The *capital budget* ~~Capital Budget represents~~ is a ten-year plan of CIP spending based on estimated project costs and prioritized schedules. Prior to the commencement of construction for ~~each any project starting~~, the Commission must appropriate funding for the total project cost. If a project is expected to exceed its initial appropriation, the Commission must approve any additional funding through a revised appropriation. ~~Funds for the Capital Budget are adopted throughout a fiscal year on a project basis. Transfers among projects require approval by the Commission. Appropriations for these budgets continue until the purpose of the appropriation has been fulfilled.~~

DEBT AFFORDABILITY.

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HRSD will comply with the debt service coverage ~~requirements~~ ratios included in its Trust Agreements. Beyond the Trust Agreements' minimums, HRSD will adopt operating and capital budgets that it projects will enable HRSD to maintain ~~net revenues at a minimum of 1.5 and 1.4 times senior~~ a *Debt Service Coverage Ratio – GAAP* and total debt service Coverage requirements *Adjusted*, respectively at a *minimum of 1.5 times on senior lien debt and 1.4 times on total debt*. ~~When calculating compliance with these coverage requirements, HRSD may make reasonable adjustments to the net revenues as presented on a GAAP basis.~~

DERIVATIVES.

The derivatives section outlined herein is intended to provide general procedural direction regarding the use, procurement and execution of interest rate swaps and options by HRSD. The Policy is intended to relate to the use of various interest rate hedging techniques, including the contractual exchange of different fixed and variable rate payment streams through interest rate swap agreements. The Policy is not intended to relate to other derivative products, such as hedges for fuel or other commodities that HRSD may consider for hedging exposures other than to interest rates.

ACCOUNTING AND FINANCIAL REPORTING.

HRSD will comply with all Generally Accepted Accounting Principles (GAAP). *As permitted by the Subordinate Trust Agreement, HRSD may present, or cause to be presented, certain calculations that reflect certain adjustments that are not in accordance with GAAP.*

HRSD will maintain a comprehensive framework of internal controls, and policies and procedures.

Over a period of not more than every five years, HRSD under the direction of the Finance Committee of the Commission will seek proposals from qualified certified public accountant firms, including the current auditors, if their performance has been satisfactory to perform an annual audit of HRSD's financial statements.

RISK MANAGEMENT.

HRSD will make diligent efforts to protect and preserve HRSD assets through a Risk Management program that selectively transfers risk (purchase insurance) for high severity-low frequency exposures and retains risk (self-insurance) for low severity-high frequency exposures.

INTERNAL AUDIT.

HRSD or its designee will conduct internal audits using a risk based approach. Such audit efforts will be approved and directed by the Finance Committee of the Commission.

4.0 PROCEDURES

4.1 DEBT MANAGEMENT

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HRSD's debt management program represents an effort to smooth out the fiscal impact of major capital investments while aligning the costs of utility service with the payment of those who will actually use the service.

The proceeds of long-term borrowing-indebtedness will not be used to finance current operations or expenses for normal maintenance. Long-term *indebtedness* will be structured such that financial obligations do not exceed the aggregate expected useful lives of the assets financed. Short-term borrowing may be utilized for the temporary funding of operational cash flow deficits or interim construction requirements.

Permitted Debt by Type. HRSD may legally issue debt instruments described below.

The most appropriate instrument for a proposed sale of debt shall be determined by financing needs and expected market conditions at the time of sale.

Lease Financing. HRSD may use leasing for facilities or equipment if (1) it can be demonstrated that this is the most cost effective or appropriate way to secure financing, or (2) on small projects that do not warrant entry into the bond market.

Installment Purchases or Conditional Sale Contracts. HRSD may utilize installment purchase or conditional sale contracts having an original term of one year or less.

~~**Bond Anticipation Notes (BANs), and CP and Lines of Credit.** Includes Commercial Paper, Each are typically short duration debt instruments (generally, with a maturity of a year or less) typically issued to provide interim financing an interim means of financing and, by their very nature due to their short duration, expose HRSD to interest rate risk and market access risk upon renewal. BANs, and CP and Lines of Credit may be used to (1) to finance small projects until such time as the project or projects can be incorporated into a larger bond sale, (2) during times of high interest rates and when the expectation is that interest rates will stabilize in the future or trend downward, (3) when market conditions are such that a BAN, or CP or Lines of Credit may be more readily received in the market than long-term debt, or (4) as an interim financing tool during the construction period for a project(s) until such time as the project(s) is placed into service and / or HRSD sells long-term debt.~~

Long-Term Revenue Bonds. HRSD may issue long-term revenue bonds to fund ~~capital projects~~ *Capital Assets and Locality Assets*.

Revenue Anticipation Notes (RANs). May be issued to meet HRSD's operational cash flow needs.

~~Lines of Credit. May be considered an alternative to other short-term borrowing options.~~

GUIDELINES ON DEBT ISSUANCE.

Trust Agreements. HRSD will abide by the covenants contained in its Trust Agreements. HRSD considers these covenants to be minimum requirements and generally expects to exceed the requirements of each covenant.

Authorization. Prior to the issuance of debt, the Commission will pass a resolution authorizing the financing arrangements and setting appropriate limits and parameters for the anticipated financing.

Lowest Cost Financing. Generally, HRSD intends to pursue the lowest cost of financing within the parameters of this Policy, the Trust Agreements and ~~HRSD's enabling legislation~~ *the Act*.

Cash Financing from Available Sources. HRSD will contribute at least 15 percent of each year's ~~capital improvement plan~~ *CIP* in cash.

Project Costs Prior to Debt Issue. If project costs are incurred prior to the issuance of debt, the Commission will pass a resolution documenting its intent to be reimbursed from bond proceeds.

~~Long-Term Debt Service Coverage. HRSD intends to adopt operating budgets sufficient to produce net revenue sufficient to generate a minimum annual debt service coverage of 1.50 times on senior bonds' debt service requirements coverage on Senior Bonds and 1.40 times debt service coverage on Senior Bonds and Subordinate Bonds total bonds' (subordinate and senior obligations) annual debt service requirements.~~ [JayBERNAS1]

Variable Rate Debt (VRD) and BANs. VRD and BANs carry inherent interest rate risk. Such securities historically have interest rates lower than fixed rate securities and offer the potential for lower debt service costs over the term of the bond issue. HRSD will consider using VRD when it improves matching of assets and liabilities, potentially lowers debt service costs, adds flexibility to HRSD's capital structure, or diversifies HRSD's investor base.

Debt service on VRD will be budgeted at a conservative rate based on historical fluctuations in interest activity and current market assumptions. Before issuing VRD, HRSD will determine how potential spikes in the debt service will be funded and consider the impact of various interest rate scenarios on its financial position and on various debt ratios.

HRSD will not issue VRD in excess of 15 percent of its total debt portfolio. This limitation, however does not apply to BANs with a maturity greater than nine months from the date of issue or BANs issued as part of an interim financing program. In addition, if HRSD can demonstrate historical and projected sufficiency of offsetting principal and interest coverage from short-term and variable rate investment assets held in unrestricted, non-operating accounts, these assets may be netted from variable rate liabilities.

Derivative Products. HRSD recognizes that the use of derivatives may aid HRSD in reducing the cost of capital and gaining flexibility in structuring its debt portfolio. The use of such products are governed by the Derivatives section of this policy.

Method of Sale. HRSD will select a method of sale it believes is the most appropriate and economically advantageous in light of financial, market, transaction-specific and HRSD-related conditions. Acceptable methods of sale may include a competitive sale, a negotiated sale, or a private placement.

Duration of Debt. HRSD will not issue debt for a period longer than aggregate useful lives of the projects being financed. *Pursuant to the Act*, HRSD ~~does cannot expect to~~ issue debt with a final maturity more than 40 years from the date of issuance. Factors to be considered when determining the final maturity of debt include: the average life of the assets being financed, relative level of interest rates, and the year-to-year differential in interest rates.

DEBT STRUCTURE

Interest Rate Structure. HRSD may make use of both variable and fixed rate debt in accordance with limitations set forth in this policy.

Tax Status. Tax-exempt debt will be used whenever possible and appropriate.

Maturity Structure. HRSD's long-term debt may include serial and term bonds. Other maturity structures may also be considered when demonstrated to be advantageous to HRSD.

Coupon Structure. Fixed rate debt may include par, discount, premium and capital appreciation bonds.

Redemption Features. In order to preserve flexibility and refinancing opportunities, HRSD debt shall generally be issued with call provisions. HRSD may consider call provisions that are shorter than traditional and/or non-call debt when warranted by market conditions ~~and opportunities~~. For each transaction, various call option scenarios will be evaluated so that the most beneficial can be utilized.

Credit Enhancement. HRSD may use bond insurance and/or line and letters of credit for credit enhancement when it is economically advantageous to do so.

When considering the use of bond insurance, HRSD will perform a maturity-by-maturity analysis. The economic feasibility of insurance will be analyzed based on the value of insurance as priced to *the earlier of* each maturity's first applicable call date *and the maturity date of such maturity*. Enhancement will be used when present value savings result or when such use permits HRSD to incorporate less restrictive covenants into a transaction which results in greater flexibility or lower user charges. HRSD may insure bonds in maturities that are borderline from an economic feasibility standpoint if warranted by other factors (e.g., use of insurance to attract investor interest where certain bond maturities might otherwise be difficult to sell).

When considering the use of a letter of credit or liquidity facility, HRSD will examine the economic feasibility of a credit facility by taking into account the trading spread, the cost of the credit facility and the interest costs of HRSD's debt if enhanced.

Debt Service Reserve Fund. ~~HRSD's senior~~ *The -Senior* Trust Agreement requires HRSD to fund a Debt Service Reserve Fund when certain debt service coverage and liquidity ratios are not met. HRSD will fund such reserve when and if it is required. *The Subordinate Trust Agreement permits, but does not require, the funding of a Debt Service Reserve Fund.*

Capitalized Interest. By definition, capitalization of interest increases the amount of debt that is issued. If HRSD capitalizes interest *on one or more series of indebtedness*, it will do so only until such time as the project being financed is expected to be placed in service. ~~Generally, HRSD will capitalize interest on indebtedness issued for revenue generating facilities only.~~

Refinancing of Debt. HRSD will refinance debt from time to time to achieve debt service savings as market opportunities arise.

Since federal regulations limit a tax-exempt issue to one advance refunding (a refinancing prior to a bond's call provision), HRSD will ensure that the advance refunding results in a significant present value savings. A proposed refinancing ~~must~~ *should* achieve a minimum cumulative, net present value savings of three percent of the amount refinanced, *provided HRSD may refinance debt that does not meet this threshold if it obtains other benefits, financial or otherwise, from the refinancing*. In addition, HRSD may consider the efficiency of a proposed refinancing transaction. The efficiency evaluation considers the value realized by HRSD when exercising its option to redeem its bonds early calculated under a variety of different interest rate environments versus the savings garnered. In general, HRSD believes a weighted average aggregate efficiency of 70 percent or greater is ~~strong~~ *a reasonable benchmark*.

In any refinancing transaction, HRSD maintains a bias to not extend maturities.

Escrow Structuring. HRSD will utilize the least costly securities available in structuring refinancing escrows. Unless State and Local Government Securities (SLGS) are used, a certificate will be provided by a third party agent stating that the securities were procured through an arms-length, competitive bid process (in the case of open market securities), and that the price paid for the securities was reasonable within federal guidelines. Under no circumstances will an underwriter, agent or financial advisor sell escrow securities to HRSD from its own account.

Hiring of Professionals. All members of the financial advisory team including underwriter, financial advisor, bond counsel, and other professionals will be selected in a manner consistent with HRSD's procurement policy for professional services.

UNDERWRITER SELECTION.

Senior Manager Selection. HRSD will select a senior manager for any proposed negotiated sale. The selection criteria will include but not be limited to the following:

- a. The firm's ability and experience in managing transactions similar to that contemplated by HRSD
- b. Prior knowledge and experience with HRSD
- c. The firm's ability and willingness to risk capital and demonstration of the firm's capital availability and underwriting of unsold balances
- d. Quality and experience of personnel assigned to HRSD's engagement
- e. Financing plan presented
- f. Cost including underwriting fees and anticipated pricing

Co-Manager Selection. Co-managers may be selected on the same bases as the senior manager with the exception of underwriting fees, which are determined by the senior manager. In addition to their qualifications, co-managers appointed to specific transactions will be a function of transaction size and the necessity to ensure maximum distribution of HRSD's bonds.

Selling Groups. HRSD may establish selling groups in certain transactions. To the extent that selling groups are used, HRSD may make appointments to selling groups, as the transaction dictates.

Underwriter's Counsel. In any negotiated sale of HRSD debt in which legal counsel is required to represent the underwriter, the appointment will be made by the Senior Manager.

Underwriter's Discount. HRSD will evaluate ~~the~~ *an underwriter's* proposed underwriter's discount against *other proposals and/or* comparable issues in the market. If there are multiple underwriters in the transaction, HRSD will determine the allocation of underwriting liability and management fees. The allocation of fees will be determined prior to the sale date; a cap on management fees, expenses and underwriter's counsel fee will be established and communicated to all parties by HRSD. Any additional expenses must be substantiated.

Evaluation of Underwriter Performance. HRSD will evaluate each bond sale after completion to assess the following: costs of issuance including underwriters' compensation, pricing of the bonds in terms of the overall interest cost and on a maturity-by-maturity basis, and the distribution of bonds and sales credits.

Syndicate Policies. For each negotiated transaction, HRSD will establish syndicate policies that will describe the priority of orders and designation policies governing the upcoming sale. ~~HRSD will ensure receipt of each member's acknowledgement of the syndicate policies for the upcoming sale prior to the sale date.~~

Designation Policies. To encourage the pre-marketing efforts of each member of the underwriting team, orders for HRSD's bonds will be net designated, unless otherwise expressly stated. HRSD shall require the senior manager to:

- a. Fairly allocate bonds to other managers and the selling group.
- b. Comply with the Municipal Securities Rulemaking Board's (MRSB) regulations governing the priority of orders and allocations.
- c. Within 10 working days after the sale date, submit to HRSD a detail of orders, allocations and other relevant information pertaining to HRSD's sale.

CONSULTANTS.

Financial Advisor. HRSD will select a financial advisor (or advisors) to assist in its debt issuance and debt administration processes. Such financial advisor(s) will be ~~a registered~~ *an Independent Registered* Municipal Advisor with *in the meaning of the Securities Exchange Act of 1934, as amended* ~~the Securities and Exchange Commission~~. Selection of HRSD's financial advisor(s) will be based on, but not limited to, the following criteria:

- a. Experience in providing consulting services to entities similar to HRSD
- b. Knowledge and experience in structuring and analyzing bond issues

- c. Experience and reputation of assigned personnel
- d. Fees and expenses

Bond Counsel. HRSD debt will include a written opinion by legal counsel affirming that HRSD is authorized to issue the proposed debt, that HRSD has met all legal requirements necessary for issuance, and, *if the interest on the debt to be issued is to be exempt under the Code, a determination consistent therewith* ~~of the proposed debt's federal income tax status~~. The approving opinion and other documents relating to the issuance of debt will be prepared by counsel with extensive experience in public finance and tax issues. The Bond Counsel will be selected by HRSD.

Conflicts of Interest. HRSD requires that its consultants and advisors provide objective advice and analysis, maintain the confidentiality of HRSD financial plans, and be free from any conflict of interest. In no case will HRSD's financial advisor be permitted to underwrite any portion of HRSD's bond issues, whether sold competitively or negotiated.

Disclosure by Financing Team Members. All financing team members will be required to provide full and complete disclosure, relative to agreements with other financing team members and outside parties. The extent of disclosure may vary depending on the nature of the transaction. However, in general terms, no agreements will be permitted which could compromise the firm's ability to provide independent advice which is solely in HRSD's best interests or which could reasonably be perceived as a conflict of interest.

COMMUNICATION AND DISCLOSURE.

Rating Agencies. HRSD seeks to maintain the highest possible credit ratings it believes appropriate for its debt without compromising the delivery of its basic core services. The Director of Finance will manage relationships with the rating analysts assigned to HRSD.

Investors, Bond Insurers, Liquidity Providers. The Director of Finance will manage relationships using both informal and formal methods to disseminate information.

Continuing Disclosure. HRSD recognizes that accurate and complete disclosure is imperative to maintaining the high credit quality of its debt. HRSD will comply with all ~~state and federal disclosure obligations~~ *of its contractual obligations and applicable law* and will meet ~~its-such~~ disclosure requirements in a timely and thorough manner.

Arbitrage Compliance. HRSD will maintain a system of record keeping and reporting in order to comply with the Arbitrage Rebate Compliance Requirements of the Internal Revenue Code of 1986, as amended.

Post-Issuance Compliance Procedures. Separate from this policy, HRSD will maintain and follow post-issuance compliance procedures. Such procedures will include provisions regarding continuing disclosure and arbitrage compliance, among others.

4.2 **DERIVATIVES**

APPROACH AND OBJECTIVES

Interest rate swaps and options (Swaps) are tools that can help HRSD meet important financial objectives. Properly used, these instruments can increase HRSD's financial flexibility, provide opportunities for interest rate savings or enhanced investment yields, and help HRSD manage its balance sheet through better matching of assets and liabilities.

Specific Objectives for Utilizing Swaps. HRSD may consider the use of specific Swaps if they meet one or more of the benefits previously described in this Policy or if they:

- a. Result in an expected lower net borrowing cost than traditional debt alternatives;
- b. Result in an improved capital structure (e.g., altered pattern of debt service payments or to create variable rate exposure) or better asset/liability matching;
- c. Cap, limit, or hedge HRSD's exposure to changes in interest rates on a particular financial transaction; or
- d. Provide a specific benefit not otherwise available.
- e. Swaps must not be speculative or create unreasonable risk. Each swap will be reviewed on a case-by-case basis to determine whether or not the level of risk is appropriate for HRSD. Examples of Swaps that HRSD considers speculative and which create unreasonable risk include, without limitation:
 - (1) Basis swaps;
 - (2) Constant maturity swaps;
 - (3) Knock-in options on swaps;

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- (4) Swaps that including a floating index multiplier (e.g., three times SIFMA); and
 - (5) Swaps that are not associated with a specific bond issue.
- f. HRSD prefers Swaps that meet the “consistent critical terms method” for evaluating the effectiveness of Swaps as defined by the Governmental Accounting Standards Board (“GASB”) in Statement #53: Accounting and Financial Reporting for Derivative Instruments.

Prohibited Swap Features. HRSD will not use Swaps that:

- a. Are speculative or create extraordinary leverage or risk;
- b. Lack adequate liquidity to terminate without incurring a significant bid/ask spread;
- c. Provide insufficient price transparency to allow reasonable valuation; or
- d. Are not reasonably uniform to the risk evaluation criteria by this Policy.

Legal Authority. As stated in Section 29 of HRSD’s Enabling Act, as approved by the Virginia General Assembly on March 11, 2008,

“With respect to contracts concerning interest rates, currency, cash flow and other basis, the District may enter into any contract that the Commission determines to be necessary or appropriate to place any obligation or investment of the District, as represented by bonds or the investment of their proceeds, in whole or in part, on the interest rate, cash flow or other basis desired by the Commission. Such contracts may include, without limitation, contracts commonly known as interest rate swap agreements, rate locks, forward purchase agreements, and futures or contracts providing for payments based on levels of, or changes in, interest rates. Such contracts or arrangements may be entered into by the District in connection with, or incidental to, entering into or maintaining any (i) agreement that secures bonds or (ii) investment, or contract providing for investment, otherwise authorized by law. These contracts and arrangements may contain such payment, security, default, remedy, and other terms and conditions as determined by the Commission, after giving due consideration to the creditworthiness of the counterparty or other obligated party, including any rating by any nationally recognized rating agency.”

All derivatives contracts require Commission approval.

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Permitted Instruments. HRSD may utilize the following financial products on a current or forward basis, after identifying the objective(s) to be realized and assessing the attendant risks.

- a. Interest rate swaps, including fixed and floating rate swaps.
- b. Options, including ~~s~~Swaptions, *Interest Rate* ~~e~~Caps, *Interest Rate* ~~f~~Floors, and *Interest Rate* ~~e~~Collars.

HRSD prefers swaps that have strong price transparency and which are of a type referred to as "plain vanilla," e.g., a fixed to floating rate SIFMA based interest rate swap.

Swaps will be subject to the legal provisions set forth in HRSD's Trust Agreement, applicable debt documents, and statutory requirements.

Procedure for Submission and Execution. HRSD may consider Swaps that are either presented as proposals or that are developed by HRSD in consultation with its financial advisor and legal counsel. HRSD will give detailed consideration only to proposals that HRSD, in its sole discretion, believes will offer the projected savings or other benefits and will have the ability to meet one or more of the objectives outlined herein.

When feasible, Swaps should be competitively procured either under a competitive sealed bid or competitive negotiation (e.g. RFP). On a product-by-product basis, HRSD will have authority to negotiate the procurement of financial instruments that have customized or specific attributes designed for HRSD.

For both competitive and negotiated procurements, the execution of any Swap transaction will be the subject *to receipt of a fairness opinion of HRSD's financial advisor*, ~~of an independent review, analysis and finding that its-the~~ terms and conditions *of the Swap* reflect a fair market value of such ~~agreement transaction~~ as of the date and time of its execution.

*The execution of A*all Swaps will be ~~executed subject to receipt of with~~ an opinion from a law firm with extensive experience in public finance and tax issues that the contract is a legal, valid and binding obligation of ~~the parties~~ *HRSD* and complies with ~~state applicable~~ law.

Swap Analysis and Participant Requirements. In connection with any Swap, HRSD, its financial advisor and legal counsel will review the proposed transaction and outline considerations associated with the transaction. Such a review will include the following:

- a. The identification of the proposed benefit and potential risks, which will include, but not necessarily be limited to, those risks outlined in this Policy;
- b. Analysis of potential savings and stress testing of the proposed transaction;
- c. Fixed versus variable rate and swap exposure;
- d. To the extent HRSD deems relevant, any rating reports or criteria regarding swaps by rating agencies; and
- e. Legal constraints.

Swap Risks. In reviewing proposed or possible Swaps, HRSD will consider at a minimum each of the following types of risks, as applicable:

- a. **Counterparty Risk.** The risk of a payment default on a Swap by a swap counterparty.
- b. **Termination Risk.** The risk that a Swap has a negative value and HRSD owes a “breakage” fee if the contract has to be terminated.
- c. **Tax Risk.** A mismatch between changes in the rate or price on HRSD’s underlying debt and the Swap caused by a reduction or elimination in the benefits of the tax exemption for municipal bonds, e.g. a tax cut that results in an increase in the ratio of tax-exempt to taxable yields.
- d. **Basis Risk.** A mismatch between the rate on HRSD’s underlying debt and the rate paid under the Swap, e.g. a tax-exempt variable rate issue which trades at 67% of LIBOR while HRSD receives 80% of LIBOR under the Swap.
- e. **Liquidity/Remarketing Risk.** The risk that HRSD cannot secure a cost-effective renewal of a Letter or Line of Credit or suffers a failed remarketing with respect to its variable rate debt.
- f. **Rollover Risk.** The risk that a Swap maturity does not match maturity of the related debt or asset.

Counterparty Risk Assessment. HRSD will only enter into a Swap with highly rated financial institutions. Credit criteria for financial institutions are as follows:

- a. The institutions' long-term, unsecured and unsubordinated obligations are rated at the time of execution of the Swap by at least one rating agency at least "Aa3" by Moody's Investors Services, Inc. ("Moody's") or "AA" by Standard & Poor's Rating Services ("S&P"), or "AA" by Fitch Ratings ("Fitch") and by at least one other rating agency at no lower than "A2" by Moody's, "A" by S&P, or "A" by Fitch; or
- b. The institutions' obligations under the Swap and the Credit Support Annex are unconditionally guaranteed by a bank or non-bank financial institution the long-term, unsecured and unsubordinated obligations of which are rated at the time of execution of the Swap by at least one credit agency at least "Aa3" by Moody's or "AA" by S&P or "AA" by Fitch and by at least one other rating agency at no lower than "A2" by Moody's, "A" by S&P, or "A" by Fitch.

In the event of downgrade of a swap counterparty below the minimal rating standard set forth above, the counterparty will be required to:

- a. Provide a substitute guarantor or assign the swap contract to an acceptable counterparty meeting the rating criteria, or
- b. Provide collateral as described in the Collateral section of this Policy.

Benefit Expectation. Financial transactions using swaps or other derivative products related to a debt issue should generate at least two percent or greater projected debt service savings than a traditional debt alternative. Such savings analysis will include, where applicable, the consideration of the probability (based on historical interest rate indices, where applicable, or other accepted analytic techniques) of the realization of savings for the derivative structure. The savings target requirement is intended to reflect the complexity and risk of derivative financial instruments, and should include a risk adjustment for other factors. For example, if the underlying debt is callable and the Swap is not, then the analysis should include a risk adjustment for this factor.

In determining any benefit in implementing a Swap, the cost of remarketing, in addition to the cost of credit enhancement or liquidity fees, will be added to the projected variable rate. Such a calculation should consider the trading performance of comparable indebtedness and any trading premium resulting from a specific form of credit enhancement or liquidity and/or any impact related to broader industry trends.

Hedging Derivatives. When utilizing a derivative to cap, limit or hedge HRSD's exposure to changes in interest rates, HRSD will evaluate various interest rate scenarios and the estimated impact on projected wastewater rates.

Legal and Contractual Requirements. HRSD will use standard International Swap and Derivatives Association, Inc. (ISDA) swap documentation, including the Schedule to the Master Agreement and a Credit Support Annex, *and related ISDA protocols*. HRSD may use additional documentation if the product is proprietary or HRSD deems in its sole discretion that such documentation is otherwise in its interest. The ~~swap~~ *Swap* agreement between HRSD and each counterparty will include payment, term, security, collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as HRSD, in consultation with its legal counsel, deems necessary and desirable.

Legal Terms of Swaps. Terms and conditions of any Swap will be negotiated by HRSD in the best interests of HRSD. Swap documentation and terms should include the following:

- a. Downgrade provisions triggering termination *based on HRSD's credit rating* will in no event be *less advantageous than* ~~worse than~~ those *permitting termination based on a downgrade of* ~~affecting~~ the counterparty.
- b. Governing law for Swaps will be New York law *to the extent permitted by law*, but should reflect *that HRSD's authorization of the related agreement is governed by* ~~Virginia authorization provisions~~ *Virginia law*.
- c. The specified debt related to credit events in any swap agreement should be narrowly drafted and refers only to specific debt.
- d. Collateral thresholds will be set on a sliding scale reflective of credit ratings (see Collateral Section).
- e. Eligible collateral will be as set forth in the Collateral Section.
- f. Termination value will be ~~set established~~ *established* by "market quotation" methodology, *which involves the solicitation of quotations from unrelated brokers regarding the valuation of the Swaps,* ~~when HRSD deems appropriate~~.
- g. ~~HRSD will only agree to a termination event to the detriment of HRSD to the extent that the ratings on the applicable HRSD debt fall below a ratings trigger acceptable to HRSD and the counterparty and no form of credit support or enhancement is in place.~~

Notional Amount. HRSD will limit the ~~total~~ aggregate notional amount of derivatives to an amount not to exceed 20 percent of ~~total~~ aggregate outstanding debt, ~~adjusted for the amount of any authorized new money bonds not yet issued.~~

To the extent that HRSD is party to multiple derivatives contracts at any given time, HRSD will seek to diversify its counterparty credit risk by limiting its credit exposure to any single counterparty.

Final Maturity. The final maturity of any swap agreement will not extend beyond the lesser of the final maturity date of HRSD's related debt and the expiration date of any letter of credit or liquidity facility on the related bonds unless HRSD has the right to cancel the swap agreement without cost on such expiration date.

Termination Provisions. Swaps will contain provisions granting HRSD the right to optionally terminate a swap agreement at any time over the term of the agreement. Such a provision will be required even if the termination is at market. In general, exercising the right to terminate an agreement should produce a benefit to HRSD, either through the receipt of a payment from a termination or, if the termination payment is made by HRSD, in conjunction with ~~a~~ the conversion of the related indebtedness to a more beneficial interest rate mode or mitigates a risk to HRSD obligation of HRSD, as will be determined by HRSD in its sole discretion.

~~Downgrade provisions triggering termination of the swap agreement will in no event be worse than those affecting the counterparty. The specified debt related to credit events in any swap agreement will be narrowly defined and refers only to debt of HRSD that could have a materially adverse effect on HRSD's ability to perform its obligations under the Swap.~~

Any termination payment will be ~~set~~ established by a "market quotation" methodology, unless HRSD deems an alternate methodology to be appropriate. HRSD's Director of Finance will provide a written report to the Commission with respect to any termination, including the reason(s) why the Swap was terminated.

Collateral. As part of any ~~swap agreement~~ Swap, HRSD will require collateralization or other forms of credit enhancement to secure any or all swap payment obligations. As appropriate, HRSD, in consultation with its ~~legal counsel and~~ financial advisor, will require collateral or other credit enhancement to be posted by each swap counterparty as follows:

- a. Each counterparty to HRSD will be required to post collateral if the long-term credit rating of the counterparty or its guarantor falls below the requirements outlined in the Counterparty Risk Assessment section of this Policy. Additional collateral for further decreases in credit ratings of a counterparty will be posted by the counterparty in accordance with the provisions

contained in the related ~~collateral~~ *Collateral support* ~~Support agreement~~ *Annex*. Threshold amounts for collateral posting will be determined by HRSD on a case-by-case basis.

- b. In determining maximum uncollateralized exposure, HRSD will consider financial exposure that it may have to the same corporate entities through other forms of financial dealings, such as commercial paper investments.
- c. Collateral will be deposited with a third party trustee, or as mutually agreed upon between HRSD and the counterparty.
- d. A list of acceptable securities that may be posted as collateral and the valuation of such collateral will be determined and mutually agreed upon during negotiation of the swap agreement with each swap counterparty. A complete list of acceptable securities and valuation percentages is included in the Acceptable Collateral section of the Policy.
- e. The market value of the collateral will be determined on at least a weekly basis, or more frequently if HRSD determines it is in its best interest given the specific collateral.

~~e.~~

Ongoing Management. HRSD will seek to maximize the benefits and minimize the risks it carries by actively managing its Swap program. This will entail frequent monitoring of market conditions for emergent opportunities and risks. Active management may require modification of existing positions including, for example:

- a. Early full or partial termination;
- b. Shortening or lengthening the term of Swaps; or
- c. Sale or purchase of options.

Legal modification to an existing Swap will require approval from the Commission. In modifying any Swap, HRSD will fulfill all terms of this Policy and refer back to the original procurement and execution procedures outlined in this Policy.

Ongoing Reporting Requirements. HRSD will take steps to ensure that there is full and complete disclosure of all Swaps to HRSD's Commission, to ~~rating~~ *Rating agencies* ~~Agencies~~. *HRSD will also present a summary description of its Swaps and in its disclosure documents.*

HRSD will provide a written report regarding the status of all Swap agreements to the Commission at least on a semi-annual basis and will include the following:

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- a. A description of all outstanding ~~swap~~-Swap agreements, including, if and when applicable, bond series, type of Swap, rates paid and received by HRSD, total notional amount, average life of each swap agreement, remaining term of each swap agreement and covenant compliance.
- b. Highlights of all material changes to swap agreements or new Swap agreements entered into by HRSD since the last report.
- c. The credit rating of each ~~swap~~-Swap counterparty and credit enhancer insuring Swap payments, if any.
- d. A summary of ~~swap~~-Swap agreements that were terminated or that have expired.
- e. A mark-to-market valuation of swap agreements and the source of the valuation, which HRSD may use for financial reporting purposes.
- e.f. *A summary of Collateral postings.*

Acceptable Collateral.

Security	Collateral Requirement	
	Valuation Percentage*	Example: \$ Value Based on \$1.0 Million
Cash	100%	\$1.0 million
(x) Negotiable debt obligations issued by the U.S. Treasury Department or the Government National Mortgage Association (Ginnie Mae), or		
(y) mortgage backed securities issued by Ginnie Mae (but with respect to either (x) or (y) excluding interest only or principal only Stripped Securities, securities representing residual interests in mortgage pools, or securities that are not listed on a national securities exchange or regularly quoted in a national quotation service) and in each case having a remaining maturity of:		
less than one year	98%	\$1.02 million
greater than one year	95%	\$1.05 million
*To calculate the dollar amount required to satisfy the collateral requirement, divide the collateral requirement by the valuation percentage shown above.		

Conformance with Dodd-Frank Act. It is the intent of HRSD to conform to the requirements relating to legislation and regulations for over-the-counter derivatives transactions under Title VII of the Dodd-Frank Wall Street Transparency and Accountability Act of 2010, as amended from time to time, *and the regulations promulgated thereunder* (herein collectively referred to as Dodd-Frank). It is the policy of HRSD that (i) each swap advisor engaged or to be engaged by HRSD will function as the designated qualified investment representative of HRSD (Designated QIR); (ii) each swap advisor agrees to meet and meets the requirements specified in the Commodity Futures Trading Commission Regulation 23.450(b)(1) or any successor regulation thereto (hereinafter referred to as the QIR Regulation); (iii) each swap advisor provide a written certification to HRSD to the effect that such swap advisor agrees to meet and meets the requirements specified in the QIR Regulation; (iv) HRSD monitor the performance of each swap advisor consistent with

the requirements specified in the QIR regulation; (v) HRSD exercise independent judgment in consultation with its swap advisor in evaluating all recommendations, if any presented by any counterparty with respect to transactions authorized pursuant to this Financial Policy; (vi) HRSD rely on the advice of its swap advisor with respect to transactions authorized pursuant to this Financial Policy and not rely on recommendations, if any, presented by any counterparty with respect to transactions authorized pursuant to this Financial Policy; (vii) HRSD comply with all recordkeeping reporting and certification requirements for end-users as applicable under the Commodity Exchange Act ~~(CEA)~~.

4.3 **Investment**

ETHICS AND CONFLICTS OF INTEREST

The Director of Finance and other employees involved in the investment process will comply with the Code of Virginia Section §2.2-3100 et seq., the state and Local Government Conflict of Interests Act. Specifically, no officer or employee will:

- a. Accept any money, loan, gift, favor, service, or business or professional opportunity that reasonably tends to influence him in the performance of his official duties; or
- b. Accept any business or professional opportunity when he knows there is a reasonable likelihood that the opportunity is being afforded to influence him in the performance of his official duties.

All employees involved in the investment process will refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions.

All employees involved in the investment process will disclose to the Director of Finance and the General Manager any material interest in financial institutions with which they conduct business. They will further disclose any personal financial or investment positions that could be related to the performance of the investment portfolio.

All employees involved in the investment process will refrain from undertaking personal investment transactions with the same individual with whom business is conducted on behalf of HRSD.

4.3.1 **OPERATING FUNDS**

Scope. Except for funds maintained in trust for retirement and health and welfare benefits for employees and/or retirees, this Policy applies to all HRSD's cash and investments (the Investment Portfolio). The Policy will apply to such monies from

the time of receipt until the time the monies leave HRSD's accounts. Although these assets may be pooled for investment purposes, they may be segregated as necessary for accounting and budgetary reporting purposes.

Objectives

All investments will be in compliance with the Code of Virginia Sections §2.2-4400 et seq. and §2.2-4500 et seq. and the Trust Agreements.

The cash management and investment activities of HRSD will be conducted in a manner which is consistent *with applicable law and* ~~with~~ prevailing prudent business practices which may be applied by other public organizations of similar size and financial resources.

The Investment Portfolio will be managed to accomplish the following fundamental goals:

- a. **Safety of Principal.** The single most important objective of the investment program is the preservation of principal of those funds within the Investment Portfolio.
- b. **Maintenance of Liquidity.** The Investment Portfolio will be managed at all times with sufficient liquidity to meet all daily and seasonal needs, ~~as well as~~ to fund special projects and other operational requirements which are either known or which might reasonably be anticipated, *and to provide adequate Self-Liquidity, if applicable.*
- c. **Maximizing Return.** The Investment Portfolio will be managed so as to maximize the return on investments within the context and parameters set forth by the safety and liquidity objectives above.

Standard of Prudence. All investments will be in compliance with the Code of Virginia Sections §2.2-4400 et seq. and §2.2-4500 et seq. and the Trust Agreement. Public funds held and invested by HRSD ~~will be~~ held ~~in trust for the benefit of~~ for its rate payers and any investment of such funds will be made solely in the interest of the rate payers and with the care, skill, prudence, and diligence under the circumstances then prevailing that a person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

The Director of Finance and other HRSD employees acting in accordance with written procedures and this Policy and exercising due diligence will be relieved of personal responsibility for an individual security's performance, provided that deviations from expectations are reported in a timely fashion to the Commission.

General Account Structure.

In order to meet HRSD's general objectives the Investment Portfolio is divided into three major investment strategies: an Operating Liquidity Strategy, a Total Return Strategy and a Capital Investment Strategy.

The **Operating Liquidity Strategy** ~~is the~~ *consists of funds that are expected to provide for major funding source for* HRSD's day to day disbursement and operational needs. As such, ~~additional emphasis is placed on~~ liquidity ~~for monies is~~ *the emphasis* in this strategy. This strategy will be funded to meet all known operating needs. Selection of investment maturities will be consistent with the cash requirements of HRSD in order to minimize the forced sale of securities prior to maturity. It is expected that a portion of the Operating Liquidity Strategy will be invested in highly liquid funds such as money market funds, overnight repurchase agreements, bank deposit accounts, or other short-term investment vehicles.

The **Total Return Strategy** consists of operating funds that ~~will are~~ not *expected to* be a major source of HRSD's day to day disbursement requirements and operational needs. The Total Return Strategy may therefore be invested in longer-term securities in order to generate an investment return, which, over time, is higher than the total return of the Operating Liquidity Strategy. This strategy may be utilized to provide Self-Liquidity on debt financings.

The **Capital Investment** Strategy is the source for capital improvement disbursements. The strategy will consist of unspent debt proceeds and unspent HRSD cash contributions to its Capital Improvement Plan. It is anticipated that investments will be made in the Capital Investment Strategy with maturity dates matching the anticipated expenditures or invested in highly liquid funds such as money market funds, overnight repurchase agreements, bank deposits or other short-term investment vehicles.

Authorized Investments. Under the ~~guidelines of the~~ Trust Agreement, the Director of Finance may invest in the following securities that are in compliance with ~~the Virginia Code~~ *applicable law*. The Director of Finance, however, may impose additional requirements and restrictions in order to ensure that HRSD's goals are met. Permitted investments for the Investment Portfolio include:

- a. **U.S. Treasury Obligations.** Bills, notes and any other obligation or security issued by or backed by the full faith and credit of the United States *of America* ~~Treasury~~. The final maturity will not exceed a period of five years from the time of purchase.
- b. **Federal Agency Obligations.** Bonds, notes and other obligations of the United States, and securities ~~except for Collateralized Mortgage Obligations~~

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issued by any federal government agency or instrumentality or government sponsored enterprise, *provided that ~~the obligations such investments is~~ must be rated in one of the two highest rating categories by at least one NRSRO and ~~an NRSRO the higher of "AA" or the~~ have the same rating as those of ~~an~~ US Treasury obligations.* The final maturity will not exceed a period of five years from the time of purchase.

- c. **Municipal Obligations.** Bonds, notes and other general obligations ~~indebtedness~~, upon which there is no default, ~~has with~~ a rating of at least AA ~~by from Standard & Poor's Peers S&P~~ and Aa ~~by from~~ Moody's Investor Services, ~~matures maturing~~ within five years of the date of purchase, and otherwise meeting the requirements of Code of Virginia §2.2-4501. However, HRSD is prohibited from purchasing its own debt for the purpose of investing its Operating Funds. Please see the *Self-Liquidity* section of this policy for important language related to Self-Liquidity and HRSD's purchase of its own debt.
- d. **Commercial Paper.** Prime quality commercial paper, with a maturity of 270 days or less, issued by domestic corporations (corporations organized and operating under the laws of the United States or any state thereof) provided that the issuing corporation, or its guarantor, has a short-term debt rating of no less than "A-1" (or its equivalent) ~~by from~~ at least two of the NRSROs.
- e. **Bankers Acceptance.** Issued by domestic banks or a federally chartered office of a foreign bank, which are eligible for purchase by the Federal Reserve System with a maturity of 180 days or less. The issuing corporation, or its guarantor, must have a short-term debt rating of no less than "A-1" (or its equivalent) ~~by from~~ at least two of the NRSROs.
- f. **Corporate Notes.** High quality corporate notes with a rating of at least "Aa" by Moody's ~~Investor's Service, Inc.~~ and at least "AA" by ~~Standard & Poor's S&P, Inc.~~ The final maturity will not exceed a period of five years from the time of purchase.
- g. **Negotiable Certificates of Deposit and Bank Deposit Notes.** Negotiable certificates of deposit and negotiable bank deposit notes of domestic banks and domestic offices of foreign banks with ~~a ratings~~ of at least A-1 ~~by Standard & Poor's, Inc. from, and~~ P-1 ~~by from~~ Moody's ~~Investor Service, Inc.~~, for maturities of one year or less, and a rating of at least AA ~~by from Standard & Poor's S&P~~ and Aa ~~by~~ Moody's ~~Investor Service, Inc.~~, for maturities over one year. The final maturity may not exceed a period of five years from the time of purchase.

- h. **Money Market Mutual Funds (Open-Ended Investment Funds).** Shares in open-end, no-load investment funds provided such funds are registered under the Federal Investment Company Act of 1940, provided that the fund is rated at least “AAAm” or the equivalent by an NRSRO. The mutual fund must comply with the diversification, quality and maturity requirements of Rule 2(a)-7, or any successor rule, of the SEC, provided the investments by such funds are restricted to investments otherwise permitted by the Code of Virginia for political sub-divisions.
- i. **Local Government Investment Pool (LGIP).** A specialized ~~money market~~ fund created in the 1980 session of the General Assembly designed to offer a convenient, *liquid*, and cost-effective investment vehicle for public entities. The Fund is administered by the Treasury Board of the Commonwealth of Virginia and is rated AAAM by Standard & Poor’s, Inc.
- j. **SNAP Fund.** *Any pooled investment vehicle established for the investment of bond proceeds under the Government Non-Arbitrage Investment Act, (Chapter 47 of Title 2.2 of the Code of Virginia).*
- i.k. **Repurchase Agreements.** In overnight, term and open repurchase agreements provided that the following conditions are met:
 - (1) The contract is fully secured by deliverable U.S. Treasury and Federal Agency obligations as described in paragraph 1 and 2 above (with a maximum maturity of five years), having a market value at all times of at least 102 percent of the amount of the contract;
 - (2) A Master Repurchase Agreement or specific written Repurchase Agreement governs the transaction;
 - (3) The securities are free and clear of any lien and held by an independent third party custodian acting solely as agent for HRSD, provided such third party is not the seller under the repurchase agreement;
 - (4) A perfected first security interest under the Uniform Commercial Code in accordance with book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. in such securities is created for the benefit of HRSD;
 - (5) For repurchase agreements with terms to maturity of greater than one day, HRSD will value the collateral securities daily and require that if additional collateral is required then that collateral must be delivered

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within one business day (if a collateral deficiency is not corrected within this time frame, the collateral securities will be liquidated);

(6) The counterparty is a:

- Primary government securities dealer who reports daily to the Federal Reserve Bank of New York; or
- A bank, savings and loan association, or diversified securities broker-dealer having at least \$5 billion in assets and \$500 million in capital and subject to regulation of capital standards by any state or federal regulatory agency; and
- The counterparty meets the following criteria: (1) A long-term credit rating of at least 'AA' or the equivalent from an NRSRO; (2) Has been in operation for at least five years; and (3) Is reputable among market participants.

a.l. Collateralized Bank Deposits. Certificates of deposit and other evidence of deposit as permitted by Section 2.2.4400 et seq. of the Code of Virginia.

b.m. US Dollar Denominated Supra Sovereign Agency Bonds. Bonds and other obligations issued, guaranteed or assumed by the International Bank for Reconstruction and Development, by the Asian Development Bank or by the African Development Bank, provided that the obligation is rated by an NRSRO the higher of "AA" or the rating on US Treasury obligations.

Portfolio Diversification. The Investment Portfolio will be diversified by security type and institution. The maximum percentage of the portfolio permitted in each eligible security is as follows:

Permitted Investment	Sector Limit	Issuer Limit
U.S. Treasury Obligations	100%	100%
Federal Agency Obligations	100%	35%
Municipal Obligations	15%	5%
Commercial Paper	25%	5%
Bankers' Acceptances	25%	5%
Corporate Notes	25%	3%
Negotiable Certificates of Deposit and Bank Deposit Notes	10 25% 10	3%
Money Market Mutual Funds	100%	100%
LGIP	100%	100%
<i>SNAP Fund (bond proceeds only)</i>	<i>100%</i>	<i>100%</i>

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Permitted Investment	Sector Limit	Issuer Limit
Repurchase Agreements	35%	35%
Collateralized Bank Deposits	100%	100%
Supra Sovereign Agency Bonds	15%	10%

The Sector Limit and Issuer Limit will be applied to the total Investment Portfolio value at the date of acquisition.

Maximum Maturity. Maintenance of adequate liquidity to meet the cash flow needs of HRSD is essential. Accordingly, to the extent possible, the investment portfolio will be structured in a manner that ensures sufficient cash is available to meet anticipated liquidity needs. Whenever practical, selection of investment maturities will be consistent with the known cash requirements of HRSD in order to minimize the forced sale of securities prior to maturity. For the purposes of the Investment Policy:

- a. The **Operating Liquidity Strategy** will be invested in short-term investments maturing in 12 months or less. Because of the difficulties inherent in accurately forecasting all cash flow requirements, at least 25 percent of this strategy will be continuously invested in readily available funds such as bank deposit accounts, money market funds and overnight repurchase agreements and at least 75 percent of this strategy will be invested in securities with maturities less than 180 days.
- b. The **Total Return Strategy** will be invested in permitted investments with a stated maturity of not more than five years from the date of purchase. To manage volatility, the Director of Finance will from time-to-time determine an investment duration target which will not exceed three years and which will be comparable to the selected performance standards as identified under the Performance Standards section of this Policy.
- c. The **Capital Investment Strategy** will be invested in compliance with the specific requirements of the Trust Agreements ~~and any supplemental indenture or covenants~~. However, in no case will bond proceeds, or funds set aside for capital projects, be invested in securities with a term to maturity that exceeds the expected disbursement date of those monies.

Debt service reserve funds with longer term investment horizons may be invested in securities exceeding five years-, *provided that such investments will mature no later than the first call date for the related bonds* ~~if the maturity of such investment is made to coincide as nearly as practical with the expected use of funds.~~

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Security Downgrades. In the event that any security held in the Investment Portfolio is downgraded below AA or equivalent rating by any NRSRO, the security will be sold within 180 days of such downgrade.

Self-Liquidity. In the event that HRSD determines to provide ~~s~~Self-Liquidity for any issuance of ~~commercial paper CP, , variable rate demand bonds, variable rate demand obligations VRBDs, or related indebtedness other structures, certain~~ investments of the Total Return Strategy will be used to ~~back-support~~ such obligations, *if necessary, provided that HRSD will not be legally obligated to pledge such funds for such purpose.* The Strategy's investments identified to provide self-liquidity coverage will be sufficient to meet the quality, volatility, liquidity, and maturity guidelines of the NRSRO's then providing ratings on HRSD's debt obligations. If needed, HRSD is permitted to purchase its own debt on a temporary basis or for the retirement of the debt. Such purchase will not be limited to the sector and issuer diversification limits as set forth in the Portfolio Diversification section of this policy or the maximum maturity requirement as set forth in the ~~General Account Structure~~ Capital Investment Strategy section of this Policy.

Investment of Bond Proceeds. HRSD intends to comply with all applicable sections of the Internal Revenue Code as it relates to Arbitrage Rebate and the investment of bond proceeds. All investment records will be maintained to ensure compliance with all regulations.

Collateralization of Bank Deposits. All bank deposits of HRSD should be considered Public Deposits as defined by Code of Virginia Security for Public Deposits Act (Section 2.2-4400 et seq.) and all deposits must be made with Qualified Public Depositories *within the meaning of such law.*

Selection of Broker/Dealers. All broker/dealers who desire to provide investment services to HRSD will be provided with current copies of HRSD's ~~Investment~~ *Financial* Policy. Before an organization can provide investment services to HRSD, it must confirm in writing that it has received and reviewed HRSD's ~~Investment~~ *Financial* Policy.

At the request of the Director of Finance, broker/dealers will supply HRSD with information sufficient to adequately evaluate their financial capacity and creditworthiness. The following information will be provided:

- a. Audited financial statements;
- b. Regulatory reports on financial condition;
- c. Proof of Financial Institution Regulatory Authority (FINRA) certification and of state registration;

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- d. A sworn statement by an authorized representative of the broker/dealer pledging to adhere to Capital Adequacy Standards established by the Federal Reserve Bank and acknowledging the broker/dealer understands that HRSD has relied upon this pledge; and
- e. Any additional information requested by the Director of Finance in evaluating the creditworthiness of the institution.

Only firms meeting the following requirements will be eligible to serve as broker/dealers for HRSD:

- a. "Primary" dealers and regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule);
- b. Capital of at least \$10,000,000;
- c. Registered as a dealer under the Securities Exchange Act of 1934;
- d. Member of the ~~Financial Institution Regulatory Authority~~ (FINRA);
- e. Registered to sell securities in the Commonwealth of Virginia; and
- f. Engaged in the business of effecting transactions in U.S. government and agency obligations for at least five consecutive years.

HRSD will designate broker/dealers on an annual basis.

Competitive Selection of Investment Instruments. All securities purchases and sales will be transacted only with designated broker/dealers through a formal and competitive process requiring the solicitation and evaluation of at least three bids/offers, taking into consideration current market conditions. Electronic bids will be accepted. HRSD will accept the bid which, in the sole judgment of the Director of Finance or his/her designee: (1) offers the highest rate of return within the maturity required; and (2) optimizes the investment objective of the overall investment portfolio, including diversification requirements. When selling a security, HRSD will select the bid that generates the highest sale price, consistent with the diversification requirements.

Safekeeping and Custody. All investment securities purchased by HRSD or held as collateral on deposits or investments will be held by HRSD or by a third-party custodial agent that may not otherwise be counterparty to the investment transaction.

All securities in HRSD's investment portfolio will be held in the name of HRSD and will be free and clear of any lien. Further, all investment transactions will be

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conducted on a delivery versus payment basis. ~~The custodial agent will issue a safekeeping receipt to HRSD listing the specific instrument, rate, maturity, and other pertinent information.~~ On a monthly basis, the custodial agent will provide reports that list all securities held for HRSD, the book value of holdings, and the market value as of month-end.

HRSD officials and representatives of the custodial agent responsible for, or in any manner involved with, the safekeeping and custody process of HRSD will be bonded in such a manner as to protect HRSD from losses from malfeasance and misfeasance.

Original copies of non-negotiable certificates of deposit and confirming copies of all other investment transactions must be delivered to HRSD or its custodial agent.

Internal Controls. The Director of Finance will establish a framework of internal controls governing the administration and management of HRSD's investment portfolio, and these controls will be documented in writing. Such controls will be designed to prevent and control losses of HRSD monies arising from fraud, employee error, and misrepresentation by third parties, unanticipated changes in financial markets, or imprudent actions by any personnel. The internal control structure will be designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived, and (2) the valuation of costs and benefits require estimates and judgments by management.

Records and Reports. The Director of Finance will prepare an investment report on at least a quarterly basis for the Commission.

Performance Standards. The investment portfolio will be designed to obtain at least a market level rate of return, given budgetary and economic cycles, commensurate with HRSD's investment risk and cash flow needs. HRSD's portfolio management approach will be active, allowing periodic restructuring of the investment portfolio to take advantage of current and anticipated interest rate movements.

The returns on HRSD's investments will be compared on a quarterly basis to indices of U.S. Treasury securities having similar maturities or to other appropriate benchmarks.

The applicable benchmarks for each of HRSD's three major investment strategies are listed below:

Fund	Benchmark
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Operating Liquidity	Merrill Lynch 3-Month U.S. Treasury Bill <i>or Effective Federal Funds rate</i> Index
Total Return	Merrill Lynch 1-3 Year U.S. Treasury Index
Capital Investment	<i>3-Month U.S. Treasury Bill, Effective Federal Funds rate, Virginia LGIP or similar index</i> Merrill Lynch 3-Month U.S. Treasury Bill Index or other index appropriate to the duration of the expected cash flows

Engagement of Investment Managers. The Director of Finance may engage one or more qualified firms to provide discretionary investment management services in compliance with this Policy for HRSD. All investment management firms who desire to provide investment services to HRSD will be provided with current copies of HRSD’s Investment Policy. Before an organization can provide investment services to HRSD, it must confirm in writing that it has received and reviewed HRSD’s Investment Policy. The Director of Finance will conduct appropriate due diligence in the selection of qualified investment management firms and will periodically confirm a manager’s qualifications by visiting that manager’s operational facilities that provide services to HRSD.

Only firms meeting the following requirements will be eligible to serve as investment manager for HRSD:

- a. Registered with the SEC under the Investment Advisers Act of 1940;
- b. Must provide to HRSD an annual updated copy of Form ADV, Part II;
- c. Must be registered to conduct business in the Commonwealth of Virginia; and
- d. Must have proven experience in providing investment management services under Code of Virginia §Sections 2.2-4500 et seq.

Any firm engaged by HRSD to provide investment services will:

- a. Maintain a list of approved security brokers/dealers selected by creditworthiness who are authorized to provide investment services in the Commonwealth of Virginia;
- b. Provide monthly reports of transactions and holdings to the Director of Finance;
- c. Provide performance reports, at least quarterly, that display investment performance in comparison to HRSD’s investment benchmarks; and

- d. Not collect any soft dollar fees from any broker/dealer or other financial firm in relation to services provided to HRSD.

4.3.2 RETIREE HEALTH PLAN TRUST

Background. HRSD established the Hampton Roads Sanitation District Retiree Health Plan Trust (the Trust) originally effective July 1, 2002, and amended and restated effective January 22, 2008 and November 25, 2008. The Trust provides for funding of non-pension/Other Post-Employment Benefits (OPEB) for employees who meet the age and service requirements outlined in the Hampton Roads Sanitation District Health Benefits Plan (the Plan) originally effective July 1, 2002, as it may be amended from time to time.

Purpose. The main investment objective of the Trust is to achieve long-term growth of Trust assets by maximizing long-term rate of return on investments and minimizing risk of loss *in order* to fulfill HRSD's current and long-term OPEB obligations. The purpose of the Policy is to achieve the following:

- a. Document investment objectives, performance expectations and investment guidelines for Trust assets.
- b. Establish an appropriate investment strategy for managing all Trust assets, including an investment time horizon, risk tolerance ranges and asset allocation to provide sufficient diversification and overall return over the long-term time horizon of the Trust.
- c. Establish investment guidelines to control overall risk and liquidity.
- d. Establish periodic performance and cost reporting requirements that will effectively monitor investment results and ensure that the investment policy is being followed.
- e. Comply with all fiduciary, prudence, due diligence and legal requirements for Trust assets.

Investment Authority. HRSD, as Plan Administrator (the Administrator), has oversight authority of certain policies and procedures related to the operation and administration of the Trust. Pursuant to the terms of the Trust, the Trustee is to hold title to the trust assets held for the Plan and to operate exclusively in the capacity as a directed Trustee. HRSD, as the named Administrator, has the authority not only to direct the Trustee but to appoint one or more investment managers. The Administrator will have authority to implement the investment policy and guidelines in the best interest of the Trust to best satisfy the purposes of the Trust.

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The Administrator has a fiduciary duty to the Trust and the participants and beneficiaries, which requires integrity and competence. Integrity requires management of the Trust and the assets for the exclusive benefit of the Trust's participants and beneficiaries. The required level of competence is that of a prudent person acting in like capacity and familiar with such matters would act. This standard of competence extends to the retention and supervision of expert investment advice and all other areas of Trust's management.

In implementing this Policy, the Administrator, in accord with the provisions of the Trust, may delegate certain functions ~~such as to:~~

- ~~a~~ ~~An~~ investment advisor (the Investment Advisor) to assist the Administrator in the investment process and to maintain compliance with this Policy. *The Investment Advisor may assist the Administrator in establishing investment policy objectives and guidelines. The Investment Advisor will adjust asset allocation for the Trust subject to the guidelines and limitations set forth in this Policy. The Investment Advisor will also select investment managers ("Managers") and strategies consistent with its role as a fiduciary for the Trust. The investment vehicles allowed may include mutual funds, commingled trusts, separate accounts, limited partnerships and other investment vehicles deemed to be appropriate by the Investment Advisor. The Investment Advisor is also responsible for monitoring and reviewing investment managers; measuring and evaluating performance; and other tasks as deemed appropriate in its role as Advisor for Trust assets.* ~~The Investment Advisor may assist in establishing investment policy, objectives, and guidelines; selecting investment managers; reviewing such managers over time; measuring and evaluating investment performance; and other tasks as deemed appropriate.~~ The Investment Advisor may also select investment managers with discretion to purchase, sell, or hold specific securities, *such as Exchange Traded Funds*, that will be used to meet the Trust's investment objectives. *The Investment Advisor shall never take possession of securities, cash or other assets of the Trust, all of which shall be held by the custodian.* The Investment Advisor must be registered with the SEC. The Director of Finance will conduct appropriate due diligence in the selection of the Investment Advisor and will periodically confirm the Investment Advisor's qualifications by visiting its operational facilities that provide services to the Trust and HRSD.
- A custodian to physically maintain possession of securities owned by the Trust, collect dividend and interest payments, redeem*

maturing securities, and effect receipt and delivery following purchases and sales, among other things. The custodian may also perform regular accounting of all assets owned, purchased, or sold, as well as movement of assets into and out of the Trust.

3. *A trustee appointed by the Trust, such as a bank trust department, if the Trust does not have its own Trustees, to assume fiduciary responsibility for the administration of Trust assets; provided, however, that if the Administrator shall have appointed an investment advisor, then any trustee appointed under this paragraph shall have no authority with respect to selection of investments.*
4. Specialists such as attorneys, auditors, actuaries and, retirement plan consultants to assist the Administrator in meeting its responsibilities and obligations to administer Trust assets prudently.

HRSD members, staff, investment advisors, consultants and managers will refrain from engaging in any activity that impairs (or has the potential to impair) their ability to make impartial investment decisions for the Trust. Persons who nevertheless engage in such conduct will immediately disclose the conduct to the Administrator. HRSD members, staff, investment managers and advisers will also immediately disclose to the Administrator any activity engaged in by their respective firms, employers, employees and agents which conflicts (or has the potential to conflict) with the execution of HRSD's investment program for the Trust.

Statement of Investment Objectives. The investment objectives of the Trust are as follows:

- a. **Funding.** The primary objective of the Administrator is to maintain the assets of the Trust at the funding level necessary to provide a pool of funds to be used to provide post-retirement welfare benefits to Plan participants. To obtain this objective the Administrator will diversify Trust assets and adopt ~~ana moderately aggressive investment posture relative to other retirement systems~~*investment strategy consistent with the Trust's investment objectives*~~systems.~~
- b. **Safety.** In order to maintain the safety of Trust assets the Administrator will:
 - (1) Invest assets of the Trust in a manner consistent with the following fiduciary standards: all transactions undertaken must be for the sole

interest of Trust beneficiaries and defray reasonable expenses in a prudent manner, and assets are to be diversified in order to minimize the impact of large losses in individual investments.

- (2) Conserve and enhance the value of Trust assets in real terms through asset appreciation and income generation, while maintaining a moderate investment risk profile.
- (3) Minimize principal fluctuations over the Time Horizon (as defined below).
- (4) Achieve a long-term level of return commensurate with contemporary economic conditions and equal to or exceeding the investment objective set forth in this policy under the Performance Expectations section of the Policy.

Liquidity. The Trust's Investment Portfolio in combination with the projected net cash flows will provide sufficient liquidity to enable the Plan to meet all operating requirements which may be reasonably anticipated.

Investment Guidelines

Within this section of the Policy, several terms will be used to articulate various investment concepts. The descriptions are meant to be general and may share investments otherwise considered to be in the same asset class. They are:

"Growth Assets" - a collection of investments and/or asset classes whose primary risk and return characteristics are focused on capital appreciation. Investments within the Growth Assets category can include income and risk mitigating characteristics, so long as the predominant investment risk and return characteristic is capital appreciation. Examples of such investments or asset classes are: domestic and international equities or equity funds, private or leveraged equity, certain real estate investments, and hedge funds focused on equity risk mitigation or equity-like returns.

"Income Assets" - a collection of investments and/or asset classes whose primary risk and return characteristics are focused on income generation. Investments within the Income Assets category can include capital appreciation and risk mitigating characteristics, so long as the primary investment risk and return characteristic is income generation. Examples of such investments or asset classes are: fixed income securities, guaranteed investment contracts, certain real estate investments, and hedge funds focused on interest rate risk mitigation or income investment-like returns.

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"Real Return Assets" - a collection of investments and/or asset classes whose primary risk and return characteristics are focused on real returns after inflation. Investments within the Real Return category can include inflation protected securities, commodities, certain real estate investments and hedge funds.

Time Horizon. The Trust's investment objectives are based on a market-cycle investment horizon so that interim fluctuations should be viewed with appropriate perspective. HRSD has adopted a long-term investment horizon such that the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets.

Liquidity and Diversification. Trust will hold an adequate amount of protected liquidity needs for benefit payments and expenses in cash or cash equivalents, as determined necessary. The liquidity assets will be invested in accordance with statutory requirements applicable to liquid assets, as determined by the Administrator. The remaining assets will be invested in longer-term securities.

Investments will be diversified with the intent to minimize the risk of *long-term* investment losses. The total portfolio will be constructed and maintained to provide prudent diversification with regard to the concentration of holdings in individual issues, issuers, countries, governments or industries.

Asset Allocation. The Administrator recognizes that asset allocation is one of the most important investment decisions that an investor makes. The Administrator or Investment Advisor, as appropriate, will allocate Trust assets in keeping with the Prudent Person Rule. The Administrator or Investment Advisor has determined that to achieve the greatest likelihood of meeting the applicable investment objectives and achieving the best balance between risk and return for optimal diversification, the Trust should allocate assets into two broad classes called Investment Assets and Liquidity Assets.

The Investment Assets will be invested in accordance with the targets for each asset class as follows to achieve an average total annual rate of return that is equal to or greater than the Trust's actuarial discount rate as described in the Section titled "Performance Expectations." The Liquidity Assets will be held in cash equivalent investments and used to pay for benefits and expenses of the Trust.

INVESTMENT ASSETS

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<u>Asset Classes</u>	<u>Asset Range</u>	<u>Weightings Target</u>
Domestic Equity	23% - 43%	33%
International Equity	11% - 31%	21%
REITs	0% - 12%	3%
Inflation Hedge	0% - 10%	3%
Fixed Income	25% - 65%	40%
Cash Equivalent	0% - 20%	0%

LIQUIDITY ASSETS

<u>Asset Classes</u>	<u>Asset Range</u>	<u>Weightings Target</u>
Cash Equivalent	0 - 100%	100%

INVESTMENT ASSETS

<u>Asset Classes</u>	<u>Asset Range</u>	<u>Weightings Target</u>
Growth Assets		
Domestic Equity	19% - 59%	39%
International Equity	1% - 41%	21%
Other	0% - 2 10%	0%
Income Assets		
Fixed Income	20% - 60%	40%
Other	0% - 2 10%	0%
Real Return Assets	0% - 20%	0%
Cash Equivalents	0% - 20%	0%

LIQUIDITY ASSETS

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<u>Asset Classes</u>	<u>Asset Range</u>	<u>Weightings Target</u>
Cash Equivalent	0 - 100%	100%

The Administrator, Investment Advisor, or ~~investment m~~Managers will have discretion to temporarily invest a portion of the assets in cash reserves when they deem it appropriate. However, the *Investment Advisor and each investment m*Managers will be evaluated against their peers on the performance of the total funds under their direct management.

~~**Additional Investment Guidelines.** In addition to the asset allocation guidelines set forth above, the Administrator or Investment Advisor, as appropriate, will allocate Trust assets in accordance with the following summary of additional guidelines:~~

<u>Asset Class</u>	<u>Not to exceed as a percentage of Asset Class</u>
Domestic Equity	
aggregate Trust market value of the common stock of one corporation	5%
aggregate Trust market value of the common stock in one industry category	25%
International Equity	
aggregate Trust market value of the non-U.S. common stock of emerging market countries	35%
Fixed Income	
aggregate Trust market value of any single issue (excluding U.S. Treasury and Federal Agencies)	5%
aggregate Trust market value of Federal Agency issues	35%
aggregate Trust market value of securities assigned	

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~~a rating of below Baa3 or BBB~~

20%

Rebalancing Philosophy. The asset allocation range established by this Policy represents a long-term perspective. For that reason, rapid unanticipated market shifts or changes in economic conditions may cause the asset mix to fall outside the Policy range. When these divergences occur, the Administrator or Investment Advisor, as appropriate, will rebalance the asset mix to its appropriate targets and ranges. Rebalancing will typically occur on at least a quarterly basis, unless the divergence it is deemed an appropriate tactical strategy by the Administrator or Investment Advisor. Similarly, if the cash requirement to handle liquidity needs falls to a level at which near-term distributions (over the following six months or less) cannot be met and no contributions are anticipated, the Administrator or Investment Advisor will rebalance the fund to its appropriate targets and ranges.

Regarding allocating contributions to the Trust, the Administrator or Investment Advisor will review the Trust allocation and fill the liquidity allocation first and the remaining investment allocations last.

Risk Tolerance. The Trust will be managed in a style that seeks to minimize principal fluctuations over the established Time Horizon and that is consistent with the Trust's investment objectives.

Performance Expectations. Over the long-term, a rolling five-period year period, the performance objective for Trust assets will be to achieve an average total annual rate of return that is equal to or greater than the Trust's current actuarial discount rate. Additionally, it is expected that the annual rate of return on Trust assets will be commensurate with the then prevailing investment environment. Measurement of this return expectation will be judged by reviewing returns in the context of industry standard benchmarks, peer universe comparisons for individual Trust investments and blended benchmark comparisons for the Trust in its entirety. Costs will be reviewed by the Administrator and Investment Advisor to determine that they are minimized to the extent possible and are reasonable when compared to benchmarks.

Selection of Investment Managers. The Administrator or Investment Advisor will prudently select appropriate investment managers to manage the assets of the Trust. Managers must meet the following criteria:

- a. The investment manager must be a bank, insurance company, or investment adviser as defined by the Investment Advisers Act of 1940.

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- b. With respect to Trust assets invested in a mutual fund, the Manager must provide historical quarterly performance data for the mutual fund compliant with SEC and Financial Industry Regulatory Authority (FINRA) standards.
- c. The investment manager must provide historical quarterly performance data compliant with Global Investment Performance Standards (GIPS), ~~Securities & Exchange Commission ("SEC")~~ SEC, ~~Financial Industry Regulatory Agency ("FINRA")~~ or industry recognized standards, as appropriate, calculated on a time-weighted basis, based on a composite of all fully discretionary accounts of similar investment style and reported net of fees.
- d. The investment manager must provide detailed information on history of the firm, key personnel, key clients, fee schedule (including most favored nation clauses), and support personnel.
- e. The investment manager must clearly articulate the investment strategy that will be followed and document that the strategy has been successfully adhered to over time.
- f. *The investment professionals making the investment decisions must have a minimum of three (3) years of experience managing similar strategies either at their current or at previous firms.*
- e.g. The investment manager for portfolios other than Pooled Vehicles (see the following Guidelines for Portfolio Holdings) must confirm that it has received, understands and will adhere to this policy and any manager specific policies by signing a consent form.

Guidelines for Portfolio Holdings. The Administrator will make every effort to prudently select funds that follow the guidelines listed below.

Until the Trust reaches a size for which investment in separate accounts is viable and appropriate, the Trust will invest in Pooled Vehicles such as commingled and/or mutual funds. Pooled Vehicles are regulated by either the Office of the Comptroller of the Currency (OCC) or the SEC and provide the Trust the ability to appropriately diversify its holdings in a cost effective manner. Inherent within the Pooled Vehicle structure is the limitation on customizing the underlying security selection based on Trust specific economic, social or other screens.

~~**Pooled Vehicles.** Every effort will be made, to the extent practical, prudent and appropriate, to select commingled funds and/or mutual funds that have investment objectives and policies that are consistent with this Policy (as outlined below in Equities, Fixed Income and Cash Equivalents sections). However, given the nature of commingled funds and mutual funds, it is recognized that there may be deviations~~

~~between this Policy and the objectives of these pooled vehicles. A commingled fund or mutual fund will not be included in the Trust portfolio unless it complies with the Investment Company Act of 1940's diversification requirement.~~

~~**Separate Accounts.** Upon attaining asset size for which use of a separate account structure is viable and appropriate, the selection of individual asset managers will be considered along with Pooled Vehicles for inclusion in the Trust. Separate accounts are governed by contract. When using separate accounts, the Trust may develop addenda to this Policy to constrain the individual asset manager using economic, social or other screening techniques.~~

Direct Investments by Advisor: Every effort shall be made, to the extent practical, prudent and appropriate, to select investments that have investment objectives and policies that are consistent with this Policy Statement (as outlined in the following sub-sections of the "Guidelines for Portfolio Holdings"). However, given the nature of the investments, it is recognized that there may be deviations between this Policy Statement and the objectives of these investments.

Limitations on Investment Manager's Portfolios

GROWTH ASSETS

~~**Equities.** Investment in common stocks, preferred stocks and publicly traded Real Estate Investment Trusts will be restricted to high quality, readily marketable securities of corporations that are actively traded on a major exchange.~~

Not more than five percent *or weighting in the relevant index (Russell 3000 Index for U.S. issues and MSCI ACWI ex-U.S. for non-U.S. issues) of the total stock equity of the total stock* portfolio valued at market may be invested in the common stock of any one corporation. Ownership of the shares of one company will not exceed two percent of those outstanding. Not more than 25 percent of stock valued at market may be held in any one *sector, as defined by the Global Industry Classification Standard (GICS)*

Domestic Equities: industry category. Other than these constraints, there are no quantitative guidelines suggested as to issues, industry or individual security diversification. However, prudent diversification standards should be developed and maintained by the investment manager(s).

*International Equities: —*The overall non-U.S. equity allocation, if any, should include a diverse global mix *of at least 10 countries that is comprised of the equity of companies from multiple countries, regions and sectors.* ~~countries. The emerging~~

~~markets allocation, if any, as defined by Morgan Stanley Capital International Inc. should be limited to 35 percent of the non-U.S. portion of the portfolio.~~

~~In order to maintain an effective money management structure that is style neutral, the target ratio of growth to value allocation in all market capitalizations will be a ratio equal to one (1:1). However, in no case will the growth to value allocation in any market capitalization exceed a ratio greater than two (2:1). Conversely, value will not exceed growth by the same ratio.~~

INCOME ASSETS

~~**Fixed Income.** Fixed income investments will be high quality, marketable securities with a preponderance of the investments in (1) U.S. Treasury, federal agencies and U.S. Government guaranteed obligations, and (2) investment grade municipal or corporate issues including convertibles.~~

~~Fixed income securities, other than U.S. Treasury/Federal Agency issues, of any one issuer will not exceed five percent of the total bond portfolio at time of purchase. The five percent limitation does not apply to issues of the U.S. Treasury. Federal Agencies of any one issuer should not exceed 35 percent of the total bond portfolio.~~

The overall *weighted* rating of the fixed income assets will be at least "AA", *based upon the ratings of such assets from a NRSRO* ~~according to one of the three rating agencies (Fitch, Moody's or Standard & Poor's). In cases where the yield spread adequately compensates for additional risk, securities where two of the three rating agencies (Fitch, Moody's or Standard & Poor's) have assigned ratings of Baa3 or BBB, can be purchased up to a maximum of 20 percent of total market value of fixed income securities.~~

OTHER ASSETS (GROWTH AND INCOME ASSETS)

Other Assets (Alternatives). ~~Alternatives may consist of non-traditional asset classes such as hedge funds, private equity, real estate and commodities, when deemed appropriate. The total allocation to this category may not exceed 310% of the overall portfolio.~~

Real Estate: ~~Consists of publicly traded Real Estate Investment Trust ("REIT") securities and/or non-publicly traded private real estate and shall be diversified across a broad array of property types and geographic locations. Investments of this type are designed to provide a stable level of income combined with potential for price appreciation, particularly in periods of unexpected inflation. For private real estate, the illiquid, long-term nature should be considered. For purposes of asset~~

allocation targets and limitations, publicly traded REITs will be categorized as “Other” under the Growth Assets category. Depending on the investment characteristics of a private real estate fund, the fund will be categorized as “Other” under either the Income Assets category, for example, a core real estate fund, or under the Growth Assets category, for example, an opportunistic real estate fund where capital gains are expected to make up a significant portion of the total return.

Portfolio Risk Hedging. *Portfolio investments designed to hedge various risks including volatility risk, interest rate risk, etc. are allowed to the extent that the investments are not used for the sole purpose of leveraging Trust assets. One example of a hedge vehicle is an exchange traded fund (“ETF”) which takes short positions.*

REAL RETURN ASSETS

Inflation Hedge. *Shall consist of pooled vehicles holding among other assets: Treasury Inflation Protected Securities (“TIPS”), commodities or commodity contracts, index-linked derivative contracts, certain real estate or real property funds and the equity of companies in businesses thought to hedge inflation. Inflation hedge assets will be reported in the Real Return Assets category.*

If the credit quality of any one issue should drop below investment grade (as defined by two of the three rating agencies – Fitch, Moody’s and Standard & Poor’s), the investment manager should notify the Administrator and Investment Advisor immediately detailing a plan of action regarding the security.

~~Active bond management may require transactions that will temporarily lower the return or change the maturity of the portfolio in anticipation of market changes. Holdings of individual securities should be liquid so as not to incur unnecessary transaction costs.~~

CASH EQUIVALENTS

Cash Equivalents. Liquidity and temporary cash equivalent reserves will be invested according to the provisions of Virginia Code Sections 2.2-4500 through 2.2-4518 ~~which are~~ applicable to liquid assets.

~~**Portfolio Risk Hedging.** *Portfolio investments designed to hedge various risks including volatility risk, interest rate risk, etc. are allowed to the extent that the investments are not used for the sole purpose of leveraging Trust assets. One example of a hedge vehicle is an exchange traded fund (“ETF”) which takes short positions.*~~

ADDITIONAL LIMITATIONS

Prohibited Investments. *Except for purchase within authorized investments,* ~~the~~ the following investments and transactions are not authorized and will not be purchased: letter stock and other unregistered securities, *direct* commodities or commodity contracts, short sales, margin transactions, private placements (with the exception of Rule 144A securities), venture capital funds, private equity, hedge funds; *Further,* derivatives, options or futures for the *sole* purpose of portfolio leveraging (portfolio leveraging refers specifically to investments which can lead to losses in excess of 100 percent of initial invested capital) are also prohibited. ~~Neither direct ownership of direct real estate equity nor, natural resource properties such as oil, gas or timber and they may be held except by purchase of publicly traded securities or within Pooled Vehicles. The~~ purchase of collectibles is also prohibited.

Safekeeping. All securities will be held by a third-party custodian *appointed selected through a public procurement process* by the Administrator, pursuant to contract approval, for safekeeping. The custodian will produce statements monthly listing the name and value of all assets held, and the dates and nature of all transactions. Assets of the Trust held as liquidity or investment reserves will, at all times, be invested in interest-bearing accounts. *Investments and portfolio securities may not be loaned.*

Control Procedures.

Legal Requirements, Controls, and Investment Policy Statement Review. At all times the Administrator will comply with all local, State, and federal reporting requirements. The Administrator will establish, maintain and review prudent internal controls for the assets of the Trust, including those used by HRSD staff, and the Trust's Investment Advisor and custodian. The Administrator will provide for annual review of the adequacy and compliance of these control procedures.

The Administrator will review the ~~Investment Policy Statement~~ *Financial Policy* no less than annually *and provide documentation to HRSD when their review is complete.* Specifically, the investment *component of the Financial Policy* will be reviewed when any one of the following occurs:

- a. Change in investment advisors
- b. Initial use of investment vehicles other than mutual funds
- c. Significant change in Trust assets
- d. Significant change in funded status
- e. Significant change in market conditions

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Review of Investment Objectives. The Administrator will review annually the appropriateness of the Policy for achieving the Trust's stated objectives. It is not expected that the Policy will change frequently. In particular, short-term changes in the financial markets should not require an adjustment in the investment policy.

Review of Investment Performance. The Administrator, on a quarterly basis, will review the total Trust investment performance, including all fees and costs and provide a report to the Commission. In addition, should investment functions be delegated, the Investment Advisor will be responsible for keeping the Administrator advised of any material change in investment strategy, investment managers, and other pertinent information potentially affecting performance of the Trust.

— The Administrator will compare the investment results including all fees and costs on a quarterly basis to appropriate benchmarks, as well as to market index returns in both equity and debt markets. *Examples of benchmarks and indexes that will be used include the ~~S&P 500 Index~~ Russell 3000 Index for broad U.S. equity strategies; S&P 500 Index for large cap U.S. equities, Russell 2000 Index for small cap U.S. equities, MSCI ACWI ex-U.S. Index for broad based non-U.S. equity strategies; MSCI Europe, Australasia, and Far East (EAFE) Index for developed markets international equities, Barclays Capital Aggregate Bond Index for fixed income securities, and the U.S. 91 Day T-bill for cash equivalents. The Russell 3000 Index will be used to benchmark the U.S. equities portfolio; the MSCI ACWI ex-U.S. Index will be used to benchmark the non-U.S. equities portfolio; the Barclays U.S. Aggregate Bond Index will be used to benchmark the fixed income portfolio. The categories "Other" will be benchmarked against appropriate indices depending on the specific characteristics of the strategies and funds used. ~~Examples of benchmarks and indexes that will be used include the S&P 500 Index for large cap equities, Russell 2000 Index for small cap equities, MSCI Europe, Australia, and Far East Index (EAFE) for international equities, Barclay's Aggregate Bond Index for fixed income securities, and the U.S. 91 Day T-bill Index for cash equivalents.~~— The Administrator will also compare investment results with the Virginia Retirement System at the end of each fiscal year.*

Voting of Proxies. *The Administrator recognizes that proxies are a significant and valuable tool in corporate governance. The voting rights of individual stocks held in separate accounts or collective, common, or pooled funds will be exercised by the investment managers in accordance with their own proxy voting policies. The voting rights of funds will be exercised by the Investment Advisor.*

Investment manager(s) are expected to be aware of corporate provisions that may adversely affect stockholdings, including but not limited to "golden parachutes," "super majorities," "poison pills," "fair price" provisions, staggered boards of directors, and other tactics. Proxies should be vigorously voted with the interest of preserving or enhancing the security's value.

The investment manager(s) of a commingled trust or mutual fund that holds the assets of the Trust along with assets of other funds with conflicting proxy voting policies must reconcile the conflicting policies to the extent possible, and, if necessary, to the extent legally permissible, vote the proxies to reflect the policies in proportion to each fund's interest in the pooled fund.

Review of Actuarial Data. The Administrator will review the Trust's actuarial data at least once every two years or more frequently if deemed necessary, to determine whether any substantive change in the investment policy is appropriate. The Administrator will provide for an actuarial valuation in compliance with GAAP, at least bi-annually.

4.3 ASSET CAPITALIZATION

Notifications. Accounting must be notified when any asset is placed in service or is in the process of disposal to ensure accurate asset records are kept.

Cost.

- a. Property, plant and equipment purchased, donated or constructed is recorded at historical cost as of the date acquired.
- b. Cost includes *capitalized* interest ~~on funds~~ borrowed to finance the construction of major capital additions.
- c. Generally, for projects funded with both debt proceeds and other resources, it is HRSD's policy to use available debt proceeds to pay project expenditures prior to using its own resources.
- d. Assets costing below the \$5,000 threshold amount are recorded as an expense in HRSD's financial statements.
- e. Routine repairs and maintenance are expensed as incurred.
- f. Vehicles, office furniture, equipment, software and intangible assets are reviewed monthly to determine whether the asset meets the capitalization threshold.
- g. Assets that are constructed over a period of time, such as capital projects, treatment plants, buildings and facilities, and interceptor systems, are reviewed at completion to determine the appropriate capitalization value, which may include interest costs.

Useful Life

- a. Assets with an economic useful life of less than 60 months are required to be expensed for financial statement purposes, regardless of the acquisition or production cost.
- b. Major repairs that substantially extend the life of an asset or expand its service capacity may be capitalized. For example, if a roof repair or coating is expected to extend the asset's useful life 20 years or beyond, the cost may be capitalized.
- c. The service lives for Capital Assets are as follows:

Treatment plants, buildings and facilities	30 years
Interceptor systems	50 years
Office furniture, computer hardware and equipment	5-10 years
Software and intangible assets	5-7 years
Automotive	5 years

5.0 **RESPONSIBILITY AND AUTHORITY**

These financial policies were created after much study and evaluation and were specifically adopted by the Commission. They were developed subject the confines of HRSD's Trust Agreement, its Enabling Act and the Code of Virginia. Any changes and exceptions to these policies will be made in writing and approved by the Commission.

HRSD's General Manager and Director of Finance/Treasurer are the designated administrators of these policies. The Director of Finance/Treasurer shall have the day-to-day responsibility and authority for implementing the provisions of these policies.

HRSD understands that changes in the capital markets or other unforeseen circumstances may from time to time produce situations that are not covered by the Policy and will require modifications or exceptions to achieve the Policy goals. In these cases, HRSD's management flexibility is appropriate provided specific

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authorization from the HRSD Commission is obtained. Failure to comply in any manner with the Policy will not result in any liability on the part of HRSD to any party.

HRSD, together with HRSD's financial advisor and legal counsel, will no less than bi-annually review the Policy and recommend appropriate changes.

Approved:

Frederick N. Elofson
Commission Chairman

Date

Attest:

Jennifer L. Cascio
Commission Secretary

Date