



***Putnam Valley Central School District
Risk Assessment Update FY 2017/2018
& Recommended Audit Plan
January 2018***



March 23, 2017

Ms. Jeanine Rufo
President, Board of Education
Putnam Valley Central School District
146 Peekskill Hollow Road
Putnam Valley, NY 10579

Dear Ms. Rufo:

We have recently completed our risk assessment update for the Putnam Valley Central School District (the "District") on behalf of the Board of Education and Audit Committee. Our risk assessment of District operations identified and prioritized risks in accordance with New York's Chapter 263 of the Laws of 2005.

In our risk assessment update, we re-evaluated the major functional areas of District operations to determine if there were any significant changes that would impact the risk evaluation from the previous fiscal year.

Based upon the results of this current fiscal year risk assessment, we have updated our proposed risk-based audit plan that is attached to this report for your review and consideration. Our risk assessment update and corresponding recommended audit plan identifies the following areas as candidates for audit:

- Revenue and Accounts Receivables

A summary for each functional area reviewed and related risk rating is in the attached risk assessment update report. We met with the Audit Committee on March 22nd to discuss the report and the recommended internal audit plan. We shall be available to meet with the Board to discuss the report at its convenience.

We appreciate the cooperation and assistance provided by District staff.

Very truly yours,

A handwritten signature in cursive script that reads "Accume Partners".

Accume Partners

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Accume Partners Risk Assessment Approach

We have performed an audit risk assessment update for the Putnam Valley Central School District (“District”), on behalf of the District Audit Committee and Board of Trustees in accordance with New York’s Chapter 263 of the Laws of 2005. A risk assessment is a systematic process for identifying and controlling risk. Risk can be defined as the possibility that something could negatively affect the District. More specifically, risk can be defined as the internal and external factors that threaten the achievement of the District’s mission, goals, and objectives.

As the District’s Internal Auditor, our primary responsibility is two-fold. First, internal audit’s role is to assist the Board in ensuring that the District’s risks are identified. Second, Internal Audit provides the Board and Management with a systematic assessment of risk to ensure that appropriate internal controls are in place to mitigate those risks.

The recommended internal audit plan is derived from the risk assessment. The internal audit plan summarizes the recommended audits or “test of controls” the District should conduct to evaluate its risk management strategies. Effective and efficient internal controls, or risk management strategies, gives the Board and Management greater assurance that the District can achieve its mission, goals and objectives. The operational effectiveness of internal controls is then tested during the internal audit.

Our risk assessment includes a District-wide analysis of the major District functions, processes, and controls. We consider qualitative and quantitative factors such as materiality to the financial statements, policies and procedures, strategic planning, and organizational change. Also, the risk assessment includes a quantitative risk rating that represents an aggregate assessment of risk relative to the financial and operating environment, information technology, governance, internal controls and compliance factors.

In the initial risk assessment, our overall goal was to determine the degree of risk within the major functional areas of District operations. This resulted in our designing an annual audit plan to focus on those areas which were most at risk. In our risk assessment update, we re-evaluated the same functional areas to determine if there were any significant changes that would impact the risk evaluation.

Internal Audit does not strictly recommend auditing only the functional areas with the highest risk rating score. Other factors affecting the recommendation include Board/Management priorities, limited resources, prior audit results, the opportunity for a greater impact in adding value to the organization, and the degree of organizational change in the functional area. All of these factors are addressed when devising the recommended audit plan.

Risk Rating Methodology

In performing our risk assessment we categorized the District into nine functional areas. We then utilized a rating methodology that takes into account sixteen quantitative and qualitative factors such as: policies and procedures; financial materiality; operational change; employee knowledge & training; internal controls; management reporting; and laws and regulations. The sixteen factors were individually weighted by relevance and importance. Then, a risk matrix was developed to comprise the sixteen factors across all nine functional areas.

The risk matrix is used to provide a systematic evaluation of risk. Each functional area's composite risk rating score is derived from the sum of the individual ratings scores of the sixteen factors. The rating system represents an aggregate assessment of risk, with the level of risk determined by the composite risk score as defined in the table below:

Composite Risk Rating Score and Level

Low < 131	Medium 131 – 210	High 211 – 300
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The qualitative and quantitative factors are individually weighted for relevance and significance. Thus, some factors will affect the overall risk rating more than others. In other words, the financial significance, materiality or criticality of a particular function to the organization's operations can increase the risk rating of a function. For example, in Payroll and Purchasing, the risk rating score for most Districts will be relatively higher than other areas because of the financial significance or materiality of these operations. This explains that some areas within the District may have higher inherent risks associated with them relative to other operations.

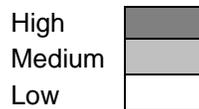
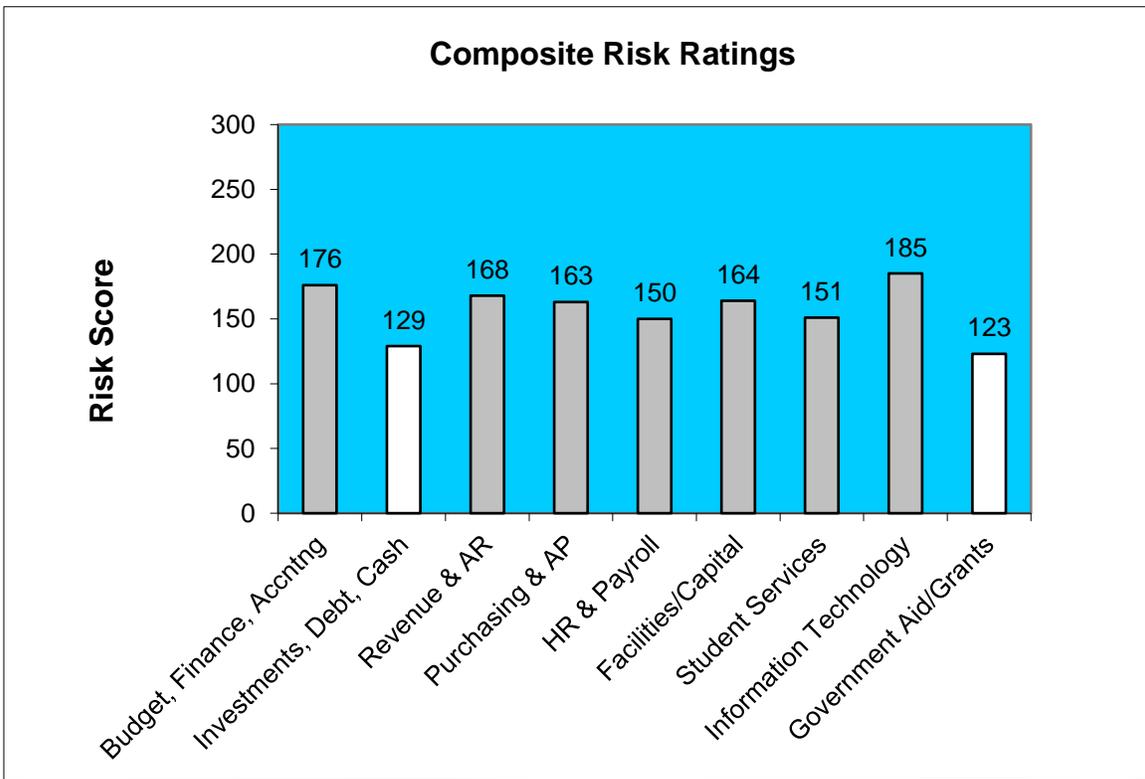
Another factor that can increase the risk rating is the design of internal controls. Although our risk assessment does not test and evaluate the operational effectiveness of internal controls, our methodology includes the identification of internal controls, as well as an evaluation of the design of internal controls. If the District was lacking in a key control over a functional area such as adequate segregation of duties or policies and procedures, that would create more risk.

In addition, we review for a system of internal controls that both prevent and detect errors. Preventative internal controls are controls that may prevent errors from occurring, whereas detective controls are controls that may detect errors once they have occurred. If the District has more controls in place that prevent errors, then the overall control environment would be stronger, and hence there would be less risk, than if the District relied solely on detective controls. The ultimate goal is to effectively manage the risks in all functional areas through the implementation of a system of internal controls that help to ensure that errors, irregularities, and fraud are less likely to occur or go undetected.

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Executive Summary

Functional Area	FY17/18		FY16/17		Internal Audit Conducted
	Risk Rating	Level	Risk Rating	Level	
Budget, Financial Accounting & Reporting	176	Medium	176	Medium	FY14/15
Debt, Investments and Cash	129	Low	138	Medium	FY08/09
Revenues and Accounts Receivable	168	Medium	168	Medium	Recommended FY17/18
Purchasing and Accounts Payable	163	Medium	168	Medium	FY12/13
Human Resources and Payroll	150	Medium	150	Medium	FY15/16
Facilities and Capital Assets	164	Medium	164	Medium	FY13/14
Student Services	151	Medium	151	Medium	FY10/11 & FY11/12
Information Technology	185	Medium	185	Medium	FY16/17
Government Aid and Grants	123	Low	123	Low	



Discussion and Risk Rating by Functional Areas

BUDGET, FINANCIAL ACCOUNTING and REPORTING Risk Rating 176 Medium

This area is concerned with the budget development, implementation and monitoring process; financial accounting and reporting; and operations of the Business Office, Superintendent, and Board governance.

The external auditor, PKF O'Connor Davies LLP, has issued their audit report, which had an unqualified opinion and did not identify any deficiencies in internal control over compliance that would be considered a material weakness.

As of June 30, 2017 the District had Net Assets of \$32.5 million, a slight decrease of \$159,294 from the previous year. Total Revenues were \$48.5 million for the year ended June 30, 2017, which were basically the same as the previous year and Total Expenses were \$48.6 million, an increase of \$3.7 million.

Any reduction in state aid due to budget shortfalls on the state level and any significant change in tax certiorari payments could impact the District's financial position.

The District's Board of Trustees consists of five members. Board members serve three year terms. Overall, the Board sets a good example of internal control awareness and "tone-at-the-top." Specifically, the Board exercises transparency in its decision-making and governing by posting Board Agendas, Meeting Minutes, Policies, and presentations to the Board on the District's website. Board Sub-Committees regularly report to the full Board. In addition, Board Meetings are taped and made available to the public via video on demand link posted on the District's website. Further, the District posts the internal audit reports on the web-site, following their summary presentations to the Board.

The District's Business Office personnel have stabilized over the past 4 years. The District Accountant, the Payroll & Benefits Clerk, the Office Assistant 1 and the Senior Office Assistant have all completed approximately 4 years in their new positions and are also trained on the new Finance Manager Nvision system. There will be a change in the near future since the Director of Operations has announced his plan to retire at the end of this fiscal year.

The risk rating level was evaluated as Medium.

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DEBT, INVESTMENTS and CASH
Risk Rating 129 Medium

Debt, Investments and Cash review looks at the processes the District has in place to oversee issuing, monitoring and recording of debt; as well as policies and procedures for managing and monitoring investments and collateral, and cash management controls.

The Long-Term Indebtedness outstanding for the District totaled \$28.4 million for the fiscal year ended June 30, 2017, compared to \$29.1 million at the end of the previous year.

At fiscal year ending June 30, 2017, the District held approximately \$18.8 million in cash and investments which had decreased from the previous year's total of approximately \$19.4 million. The District's main source of revenue, property taxes, is collected at the beginning of the year and spent down as the year progresses.

The District has an investment policy and has procedures in place to determine whether cash is available for investment. Excess cash balances are transferred to interest bearing accounts to maximize revenue. A summary record of key information is maintained for all investments to properly monitor and account for investments.

The Business Office has adequate segregation of duties with respect to cash management. The Account Clerk opens mail; The Senior Office Assistant logs and posts cash received; and prepares the bank deposit. The Senior Office Assistant prepares the Treasurer's Receipts, and the District Accountant performs the bank reconciliations.

Proper cash technology controls require layers of internal controls to prevent misappropriation of district assets. The District follows best practices such as separation of duties with electronic funds transfers, use of complex passwords, daily monitoring of bank accounts, and use of dedicated computers for online banking transactions. Internal Audit notes that the District Treasurer approves all wire transfers initiated by the Senior Office Assistant. In addition, the District ensures that computers used to make online banking transactions are formally registered with its banking institutions, and that alerts are enabled to ensure proper monitoring of banking activity.

This area was rated a Low risk.

REVENUE and ACCOUNTS RECEIVABLE
Risk Rating 168 Medium

The review of this area focuses on property tax and non-tax revenue, recording and reporting revenue, billing and maintaining accounts receivable, and other Treasury functions in the Business Office.

Revenues are collected from multiple sources, including taxes, tuition payments, extraclassroom activity funds, state aid, unrestricted earnings on investments, sale of

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property and miscellaneous items. Total revenues were \$46 million for fiscal year 2017 which was approximately the same as the previous year. Of that amount real property taxes were \$30.7 million for fiscal year 2017. The District has a reserve fund for tax certiorari claims of \$1,040,746 at June 30, 2017 versus \$882,941 at June 30, 2016. Maintaining an adequate level of tax certiorari reserves helps to lower the risk of any tax certiorari charges.

The District collects its own taxes. This can increase the overall risk involved in collecting and receiving property tax revenues. However, the District mitigates the risk by collecting and processing the majority of its taxes through a Lockbox operation with its primary bank. This enables District residents to mail their payments directly to the bank, or make payments at the bank. The District Accountant has a significant number of responsibilities in the District, including mailing of tax bills; collecting cash payments and posting of all tax payments; as well as reconciling the tax revenues between the Nvision financial system and the new tax software system which was implemented for the last tax bill cycle. However, in order to maintain a segregation of duties and controls, the District Accountant does not reconcile the bank account statements. After October 31st uncollected tax accounts go to the Towns of Putnam Valley, Carmel, and Cortland which then fund the District.

This area continues to be rated Medium.

**PURCHASING and ACCOUNTS PAYABLE
Risk Rating 163 Medium**

This area is concerned with the Purchasing function and Accounts Payable, Cash Disbursements, and the Internal Claims Audit processes.

Purchasing and accounts payable systems' controls include unique accounts and passwords for each system user, thereby limiting any changes to their own codes. The vendor database is entered by the Business Office Assistant. The District Treasurer coordinates all purchasing for the District/Business Office and approves requisitions for the Business Office. An additional Business Office Assistant creates purchase orders for all approved requisitions for the District and ensures the proper flow of purchasing transactions. Another improvement in the purchase order system is that the requisitions are processed electronically, and are approved at the Principals' and Assistant Superintendent's levels thereby increasing its efficiencies and eliminating paper.

The Accounts Clerk enters invoice batches into the District's Finance Manager accounting system to schedule payments; prints a check register for the Internal Claims Auditor's verification; and prints checks and mails them to vendors after verification. This individual performs a three way match of Purchase Order (P.O.) to invoice to receiving report, prior to entering the claim into the system. If a receiving report is not available, the requestor must sign the invoice as evidence of receipt of goods or that services were rendered.

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The District's Internal Claims Auditor conducts her audit of claims on behalf of the Board on the school premises. This is a best practice and facilitates the review of claims and allows for direct communication with the Accounts Payable Clerk to address audit findings and questions in a timely manner. The Internal Claims Auditor provides monthly reports of detailed audit findings to Management and the Board.

The risk rating level was evaluated as Medium.

HUMAN RESOURCES and PAYROLL
Risk Rating 150 Medium

Both Human Resources and Payroll areas are closely linked in the administration of personnel, payroll, and benefits. In addition, this area is concerned with District compliance to Board Policies, union contracts and bargaining agreements, and applicable state and federal laws and regulations. The District's largest expense is salaries, wages and fringe benefits. This functional area is a highly significant one, not only due to the magnitude of its share of the District's budget, but also due to the complexity and sensitivity of its operations and ensuring compliance.

Each final bi-weekly payroll register is reviewed by the District Treasurer before it is certified and payroll is distributed. The payroll certification process includes a review of changes to payroll. Hourly employees are paid on an annualized basis. Thus, the review of the Preliminary Payroll Report by the Accountant, as well as the Final Payroll Report which is reviewed and signed by the District Treasurer, include both full and part-time employees. Timesheets are submitted for additional hours, stipends, and overtime. Timesheets are signed by both the Employee and Supervisor. The Payroll/Benefits Clerk prepares, files, and signs the state and federal quarterly payroll tax reports. The preparation of quarterly payroll taxes is independently reviewed by the District Treasurer, who makes the tax payments.

In conjunction with the Finance Manager nVision software upgrade, Management has restructured the duties of the Payroll/Benefits Clerk, the Human Resources Clerk and the Account Clerk to allow for increased segregation of duties, thereby strengthening the controls over the human resources and payroll processes. Finance Manager nVision also provides increased controls through new reporting and monitoring capabilities.

The risk rating level was evaluated as Medium.

FACILITIES and CAPITAL ASSETS
Risk Rating 164 Medium

This area includes buildings and grounds, facilities maintenance, capital improvements and new construction, fixed assets and inventory controls.

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The Director of Operations is in charge of the District's buildings, grounds, facilities maintenance, transportation and Information Technology. Work orders are maintained and tracked on an automated system within the Department.

Capital assets, net of accumulated depreciations as of June 30, 2017, were \$30.3 million, approximately the same as the previous year, and included equipment, machinery, land, and buildings and improvements.

A new 5 year facilities plan was developed for FY15/16 – FY20/21. New capital construction has to be approved by District voters. Procedures are in place to ensure that the District obtains the necessary approval and building permits for school construction projects. Also, process is in place to prevent the cost of construction from exceeding the amount authorized by voters. Bond counsel and financial advisors are used as appropriate in the facilities construction process.

The risk rating continues to be Medium.

STUDENT SERVICES
Risk Rating 151 Medium

This area includes Transportation, Food Service, Extraclassroom Activity Funds ("ECAAF"), Special Purpose Fund, Afterschool Programs, Adult Continuing Education, Athletics, and Safety and Security.

The Extra Classroom Activities Funds represent funds generated from extracurricular activities for which the District serves as custodian. As of June 30, 2017, there were 33 student activity accounts (Middle School: 9, High School: 24) totaling \$107,700. Although the dollar amount of cash receipts and disbursements is not materially significant in comparison to the District's total budget, the nature and volume of activity warrants close monitoring and supervision.

The District utilizes a combined approach in providing its pupil transportation services. The District owns 13 mini-buses and 4 full size buses which are driven by 22 bus drivers who are employees of the District. In addition, the Montauk Bus Co. provides 16 full size buses and 4 mini-buses driven by their employees. The contract with Montauk will yield significant savings due to the transitioning of bus purchases to the outsourced contractor.

The District's outsources its Food Service program. All schools offer breakfast, lunch and a-la cart programs. The program is self-sustaining. The Food Service Department uses an automated Point of Sale "P.O.S" system to manage student accounts, cash receipts, and meal sales. The Food Service Director prepares the budget, and prepares monthly reports of food service operations to the Business Official.

This area continues to have a Medium risk rating.

INFORMATION TECHNOLOGY

Risk Rating 185 Medium

This area includes IT Strategy and Planning, Outsourced Vendor Management, Business Continuity Planning, IT Infrastructure and Maintenance, Information Security, Governance, Systems Development and Maintenance, Systems Support and Critical Systems.

There have been no significant changes to the IT environment since the last risk assessment update. In August 2017, we performed an Information Technology Audit which resulted in the following recommendations:

1. Review the current vendor Service Level Agreements (SLA's) and evaluate contractual vendor compliance with agreed upon terms and conditions.
2. Perform a periodic review of system access rights for all applications to ensure that user ID's are for active employees or approved consultants and that rights align with job responsibilities.
3. Provide security awareness training for safe computing practices and response actions to all employees who have access to systems and data. Training should address the protection of non-public information and include information security basics as well as cybersecurity threats (i.e., Ransomware, Safe Web Browsing, Mobile Device Security, Phishing/Social Engineering, and Domain Spoofing).

In response to the audit recommendations, the District documented a corrective action plan and has addressed all recommendations.

From an overall perspective the District has IT controls in place that are operating effectively. This is supported by the fact that there were no "Significant or Needs Improvement" issues identified in our internal audit. The areas with observations and recommendations were rated as "Satisfactory" which indicates modest weaknesses that require management's attention.

Details are provided in the Appendix of this report.

GOVERNMENT AID and GRANTS

Risk Rating 123 Low

This area includes government aid from the state and federal governments, and foundation and other not-for profit aid and donations.

The District receives a small amount of state and federal aid. There has been no material change in government aid and grants since our previous risk assessment. Economic uncertainty makes it difficult to plan for special needs program funding from the State and

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Federal Government. In terms of state aid, the District estimates receipt of approximately \$189,910 for Title IA, Title IIA and Title IIIA grants for 2017 projects.

The District receives some federal aid through grants. In FY16/17, the District was awarded \$380,147 in federal grants. Overall, federal grants account for less than 1% of the District's total budget.

Most state and federal program aid require certain applications and claim forms to be submitted at a determined schedule. The District does have a process in place to submit claims for State and Federal aid. The Assistant Superintendent for Pupil Personnel Services is responsible for preparing the application and budget for Special Education and has been performing this task for numerous years.

This area has been rated Low risk.

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Putnam Valley Central School District Recommended Internal Audit Plan	FY Audit Hours	
	17/18	Future
Risk Assessment Update	50	X
Budget, Financial Accounting & Reporting		
Review of internal controls related to fiscal accountability and budget control, and operations in the Business Office.		
Debt, Investments and Cash		X
Review of internal controls over debt and investment monitoring and cash management.		
Revenue and Accounts Receivables	110	
Review of internal controls over revenue, billing & collections, and accounts receivables.		
Purchasing and Accounts Payable		X
Review of Purchasing, Accounts Payable and Claims Audit processes, including payment of invoices.		
Human Resources and Payroll		X
Follow-up to implementation of Corrective Action Plan in response to Internal Audit conducted in FY07/08.		
Facilities and Capital Assets		X
Review of internal controls over facilities operations, capital project monitoring and reporting; and/or capital asset accounting and inventory control.		
Student Services		X
Review of internal controls over Food service operations, Transportation, and/or Safety & Security.		
Information Technology		X
Review of General Computer Controls		
Government Aid and Grants		X
Review internal controls over grant administration, grant finance and accounting, grant performance monitoring, and compliance.		
Planning, Administration and Audit Committee Meetings	25	
Total Internal Audit Hours	185	

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Appendix

***IT Risk Assessment Update
FY 2017/2018***

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Information Technology in education environments has basic inherent risk due to the concentration of critical information being in an electronic format and the need to provide for the proper security over this information. The following risk assessment was conducted in cooperation with IT management for each of the following IT audit areas:

IT Strategy and Planning

An assessment of the School District's IT management controls determines whether the organizational structure, the IT resources used, and related control policies and procedures are adequate to foster effective management of Information Technology. Management and the School District's Board of Education must be clearly involved in the IT planning and decision-making process.

The Information Technology functions at the School District are performed under the direct supervision of the Director of Operations, Technology and Transportation who reports to the Superintendent. The District's IT staff consists of a Network Administrator, a Network Engineer and two Instructional Technology Specialists who support the elementary and middle schools. There is also a BOCES Network Specialist who supports the High School. The Director of Operations, Technology and Transportation oversees the Network Engineer and Instructional Technology Specialists. The Network Administrator reports to both the Superintendent and the Director of Operations, Technology and Transportation. The Director of Operations, Technology and Transportation is responsible for developing and implementing the District's IT strategy and is also responsible for overseeing the daily IT operations.

The District has a documented Instructional Technology Plan in accordance with NYSED regulations. This plan covers the computer technologies in use by the District, provisions for the maintenance and repair of equipment, and provisions for staff development.

The School District has an established District Technology Committee composed of the chair people of each of the three building level committees (High School, Middle School and Elementary School), parent representatives, administrators, and a representative of the Board of Education. The District Technology Committee meets bi-monthly to discuss the progress made on annual goals and long-term goals and projects. The committee shares best practices and feedback for the staff and community in regards to results of any studies or surveys. The surveys also help determine the training needs and interests of professional and non-instructional support staff.

As a result of our IT Audit performed in August 2017, we recommended that the District provide security awareness training for safe computing practices and response actions to all employees who have access to systems and data. Training should address the protection of non-public information and include information security basics as well as cybersecurity threats (i.e., Ransomware, Safe Web Browsing, Mobile Device Security, Phishing/Social Engineering, and Domain Spoofing). This recommendation will be implemented in 2018 during District Superintendent Conference Days.

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Outsourced Vendor Management

An assessment of the vendor management controls determines whether vendors are appropriately selected, effectively managed and monitored as a normal course of business. Specific attributes, which demonstrate the effective use of vendors include:

- A formalized vendor selection process which includes appropriate due diligence procedures such as background checks, capability, cost, financial stability, quality of IT personnel etc.
- Formalized vendor contract review which includes the development of specific service level metrics
- A structured process for monitoring activities performed by vendors

The Technology Department reviews vendor contracts on an as-needed basis and must follow a structured vendor selection process, as defined by applicable New York State law, in order to be eligible for discounts provided by the Schools and Libraries Program of the Universal Service Fund (commonly referred to as “E-Rate”). The E-Rate Program funds some of the School District’s telecommunications and Internet connections and the applications that use them. Services that are outsourced by the School District include:

Outsourced Services	Provider
<ul style="list-style-type: none"> • Application System Host – nVision (f/k/a Finance Manager) • Backup and Disaster Recovery Services – nVision • Internet Service Provider • Technical Network Expertise 	Lower Hudson Regional Information Center (LHRIC)/Board of Cooperative Educational Services (BOCES)
Web Based Student Management System Support – PowerSchool	Pearson Education, Inc.
Off-site Backup Co-location	Xand
Network Monitoring Services	Computer Systems Integrators (CSI)
Inventory and Fixed Assets Function	CBIZ Valuation Group

As a result of these outsourcing arrangements, the majority of IT operational risk for these functions has been transferred to outsourced providers. This transfer of risk, however, requires the District to establish strong monitoring controls to ensure service providers maintain a controlled operational environment.

As a result of our IT Audit performed in August 2017, we recommended that the District review the current vendor Service Level Agreements (SLA’s) and evaluate contractual vendor compliance with agreed upon terms and conditions. This recommendation has been implemented.

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Business Continuity Planning

The District has a documented Business Continuity Plan (BCP) which identifies key business continuity resources, details individual system business continuity plans and includes an nVision Disaster Activation Plan. Two NetApp storage systems at the High School and Middle School allow for a redundant environment with all data being written to both storage systems in real time. Data is also replicated and archived on two additional NetApp devices; one at the Elementary School and the second at the Xand co-location in Elmsford, NY. If an outage occurs at the High School, the affected server's functions are automatically routed to the Middle School with no interruption to users. Should the High School, Middle School and Elementary School become unavailable, data would be obtained from the Xand co-location.

A failover test is performed monthly to test Business Continuity. The District also utilizes the LHRIC's Disaster Recovery services for NVision and participates in testing recovery of nVision annually with the LHRIC.

IT Infrastructure and Maintenance

The School District's network infrastructure connects the classrooms, schools and buildings to each other and the Internet via fiber optic cables, T1/TLS lines and various switches and routers that control traffic throughout each school and the District Office. Wireless Virtual Local Area Network's (VLAN's) are also provided at the Middle School and High School. An overall network diagram has been developed which documents the current infrastructure.

The servers owned by the District run either LINUX or Mac OSX Server and are managed by the Network Administrator. These servers host file services, e-mail, student information services and web pages as well as two firewalls and content filtering. Remote monitoring of the District's network and IT devices is provided by CSI. CSI also performed a security assessment of the District's network infrastructure. Planned infrastructure changes include updating networking equipment.

Each of the District server locations is protected by a firewall with Internet filtering and surf control protection. The firewall is maintained by the Network Administrator and is configured to operate within the most restrictive environment. Firewall activity events are logged, remain active for 10 days and are then archived.

Information Security

Systems security administration is a process which entails: performing risk analysis, administering the security policy, identifying security breaches, reporting incidents to management, maintaining and reviewing audit and security logs, and coordinating with both users and management regarding security.

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A Computer, Internet and E-Mail Use Agreement has been developed by the District. All staff are required to read and sign the agreement prior to receiving network or e-mail access. Compliance with the agreement is monitored through Apple Remote Desktop software which is activated on all District computers. Through this software IT Administrators have the ability to monitor computer usage and generate reports while the user works. Logs are maintained on District servers and the local computer.

Access to the School District's Network is controlled through user ID's and passwords. Specific login rights and access are determined by the type of account provided to the user, such as teacher, student, district employee, etc. The Human Resources Department utilizes an Employee IT Checklist, using gmail forms, to communicate the level of access each user should have. This is forwarded to the Network Administrator to establish or remove system access.

Access to the financial applications is restricted to only those individuals who require access to perform their job responsibilities. The District Treasurer coordinates with the LHRIC to assign nVision user ID's and passwords on an as-needed basis. Each nVision user account has access privileges specific to that account. In addition, passwords are complex, set to expire after 90 days and access is denied after three invalid login attempts.

If user access entitlements need to be changed or deleted, written justification must accompany the request. In addition, the Technology Department receives written notification of personnel changes, and adjusts access accordingly.

Access to the main server room in the District is controlled by a key lock and a locked cage. Separate keys are required for access. The main server room also contains a dedicated HVAC unit for climate control, fire/smoke detection systems and a UPS system. Backup power is provided utilizing a diesel generator.

As a result of our IT Audit performed in August 2017, we recommended that the District perform a periodic review of system access rights for all applications to ensure that user ID's are for active employees or approved consultants and that rights align with job responsibilities. This recommendation has been implemented.

Governance

IT management within the School District is responsible for the development of policies and operating procedures that assure effective management, the security of information technology resources and compliance with applicable regulatory guidelines. In addition to the Computer, Internet and e-Mail Use Agreement, the District has Board approved policies over Computer Resources and Data Management, Information Security Breach and Notification, Student Privacy and Student Use of District Technology. Technology Guidelines have also been documented and consist of:

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- Loan of Computers to Students for Educational Needs
- Acceptable Use of Technology Resources
- Password Protection and Requirements
- Remote Access
- Network/Internet Connections
- Approved Applications
- Personal Use/Approved Internet Sites
- Asset Control
- Laptop Computer Use
- System Updates
- Intrusion Detection

Systems Development and Maintenance

The School District does not perform any systems development and does not make changes to the academic or business office application systems. nVision owns the source code for the business office applications and if a change or update is needed, nVision codes the change and remotely installs it into production at the LHRIC. The Network Administrator will assist with any updates to the Student Information System.

As the School District does not perform its own programming functions in support of its critical systems, performing system development and maintenance functions is not critical to the continued success of the organization. The management of these functions provided by service providers, however, is critical as noted in the Vendor Management section of the Risk Assessment.

Systems Support

Systems Support includes those components of information technology that support systems processing and consist of help desk procedures, desktop support, production support and change management control.

The Instructional Technology Specialists serve as the Help Desk personnel, assist staff and students in the use of technology and make repairs of moderate complexity. Most Help Desk calls are for damaged laptops to be repaired.

All critical systems are backed up daily, both locally and off-site. The District has implemented a disk to disk backup procedure using two NetApp Network Attached Storage (NAS) systems. The two NAS systems mirror each other and data “snap shots” are taken every hour. Data is also replicated and archived on two additional NetApp devices; one at the Elementary School and the second at the Xand co-location in Elmsford, NY. Most backups are automated, and the Network Administrator is sent daily e-mails from the systems after each successful backup.

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Putnam Valley Central School District
Risk Assessment Update Report FY17/18*

Backups of nVision are performed by the LHRIC. The LHRIC’s Operations Department connects to the District’s nVision Server each morning and pulls a copy of data created the day before stored in the Export directory without having access to the live database. Two days of archived copies are stored at another Regional Information Center, and tapes of each day’s backup are sent to an off-site data retention facility.

Critical Applications

Critical applications have a material impact on the School District’s operations and management of non-public information. These applications must be reviewed and tested on a periodic basis to ensure the integrity of processing and the security of information. Critical applications include the following:

Service Provider/Vendor	Application	Type of Data	Tests of Controls
nVision	Financial, Payroll and Human Resources Applications	Employee non-public	Internal Audit
PowerSchool	Web Based Student Management System	Student non-public	Internal Audit
IEP Direct	Web Based Special Education Student Management System	Student non-public	Internal Audit