GREENFIELDS WATER DISTRICT

Hyde Park, NY

REORGANIZATION STUDY AND PLAN

Evaluation of District Dissolution and
Transfer to Dutchess County
Water and Wastewater Authority

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INTRODUCTION

Partnership and Evaluation

The challenges of maintaining aging infrastructure and growing complexities in the regulation of water systems, coupled with the current economic climate and growing pressures to reduce the costs of providing municipal services, has prompted the Town of Hyde Park (Town) to partner with the New York State Department of State (DOS) and the Dutchess County Water and Wastewater Authority (DCWWA) to evaluate alterative solutions to continue providing potable water to the residents of the Greenfields Water District. To advance this effort, the Town formed a Re-organization Study Committee (RSC) that includes representatives from the Town Board, the Greenfields Water Advisory Committee and DCWWA Staff, and charged the RSC with the task of developing this Reorganization Study. The Town Attorney and Town Consulting Engineer, along with additional DCWWA staff, provided technical advice to the RSC.

The goal of the Project is to determine whether meaningful benefits can be realized by dissolving the existing Town Greenfields Water District, and transferring ownership and management responsibilities for the water system to the Dutchess County Water and Wastewater Authority (DCWWA). Benefits are considered to include; improved efficiency and quality of service delivery; keeping rates as low as possible while taking into account both the current system's operational expenses as well as long-term maintenance and rehabilitation of infrastructure; and improved efficiencies, services and savings Town-wide as local government officials are relieved of the increasing complexities of operating and managing small water systems and thereby able to commit greater time and attention to core municipal functions.

Over the coming years, the Town faces significant issues in terms of financing and managing the necessary maintenance, repair and future rehabilitation of the water system's aging infrastructure. Yet there are inherent difficulties faced by the Town, as with all municipalities, in meeting these challenges, most notably the competing demands on the time and resources of local government officials, the lack of full time staff with the necessary technical knowledge and experience, and the difficulty, in the face of biennial coterminous elections, of maintaining continuity in system oversight and the management of capital projects with two to four year life cycles. Specialized expertise and a long-term planning perspective are needed to develop alternative, regional solutions to optimize operational and capital efficiencies found with increasing scale, leading to stability in customer costs.

In contrast, the DCWWA has full time professional staff dedicated to the proper operation and long-term management of water and wastewater systems, with a long track record of successfully managing infrastructure rehabilitation and improvement projects. Through consolidated management with existing DCWWA systems, there are opportunities for economies of scale and improved efficiencies.

This Reorganization Study Report is the result of the RSC's efforts to evaluate the potential dissolution of the Town's Greenfields Water District (the District) with the intent that ownership

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of the system and responsibility for the provision of water services would be transferred to the DCWWA.

GOALS AND OBJECTIVES

Specific objectives of this Re-organization Study include:

1. To develop a full understanding of the Greenfields wells, water treatment facility, storage and distribution system and appurtenances in terms of their current physical condition and performance compared to water supply permit and general regulatory compliance, and the short and long term capital improvement needs;
2. To develop a full understanding of the fiscal condition of the District, in terms of actual revenues versus actual expenses, and availability of sufficient fund balance, and to understand future expenses and revenue requirements needed to properly operate and maintain the facilities into the future;
3. To evaluate options and develop preliminary cost estimates to interconnect the District to the existing DCWWA Hyde Park Regional Water System.
4. To develop a full understanding of any legal issues arising or potentially arising from the dissolution of the District, transfer of ownership of facilities, and establishment of water services by the DCWWA;
5. To identify the steps and timelines for dissolving the District and transferring ownership of facilities to the DCWWA.
6. To develop an accurate estimate of costs of dissolving the District and transferring ownership of facilities to the DCWWA; and
7. To educate District customers/property owners regarding the implications of dissolving the District and transferring ownership of facilities to the DCWWA, and to gauge the level of public support for such action.

To meet the above objectives, the Town retained the firm of T&B Engineering P.C. to complete the engineering evaluation. Their full report is provided as Appendix A. Legal analysis was provided by the Attorney to the Town and is included as Appendix B. The financial evaluation was completed with Town and DCWWA staff. DCWWA staff prepared the estimates of projected expenses and revenue requirements under DCWWA ownership.

Should the Town Board decide to dissolve the District, the Study will provide them with a road map of the steps to be taken and an estimate of the expenses that will be incurred (Draft Reorganization/Dissolution Plan.) Should the Town Board determine to maintain the District and ownership of the system, the Study will have provided them with an improved understanding of the physical and financial condition of the District, and will thereby provide the basis for efficient and effective management of the system moving forward.

Overview of the Town

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The Town of Hyde Park is located within the eastern portion of Dutchess County, New York. Among its many municipal duties, the Town is responsible for the management and operation of six water and two sewer special improvement districts, with responsibility for a third sewer district shared with the Town of Rhinebeck. Administration of the Town is directed by a five person Town Board, including a Supervisor (representing the entire Town) and four Town Board Members representing four separate Wards. The Supervisor and Board Members are each elected to serve two year coterminous terms. The Supervisor serves as the chief executive officer of the Town. The Town Board is the legislative body responsible for establishing policy and sanctioning expenditures.

The Greenfields Water District (District) is a special improvement district that provides potable water supply service to 281 residential customers and a sewage treatment parcel. The District is an administrative subdivision of the Town, managed directly by the Town Board. The Town does not have in place Rules and Regulations for the governance of the District. The Town Board appoints residents from within the District to an Advisory Committee, charged with providing the Town Board with general advice regarding the oversight of the District. The Town's Comptroller Office oversees the financial management of the District. A full time Senior Account Clerk evaluates requisitions. A part-time Clerk processes payment for contracted work and materials. The Town's Receiver of Taxes collects utility payments from District customers and annually collects unpaid amounts through the relevy tax process.

The Town relies on a private contract operations firm to handle day to day operations, including management of potable water production and distribution, regulatory compliance including sample collection and interpretation, preparation of monthly reports, and routine equipment and facility maintenance. Major repairs, emergency response and additional services such as meter reading, customer tracking and development of customer bills, are provided on a time and material basis, as defined by the operations contract or additional proposals. The Town Consulting Engineer advises the Town on an as needed basis.

Overview of the DCWWA

Purpose of Powers of the DCWWA

The Dutchess County Water and Wastewater Authority (DCWWA) is a public benefit corporation that was established in 1991 by an act of the State, at the request of Dutchess County. The DCWWA is empowered to supply water; to accept and treat wastewater; fix rates and collect charges for its services; to acquire real property; and to issue debt, among other powers. In carrying out its functions, the DCWWA is deemed to be acting in a governmental capacity; the DCWWA is tax-exempt, it must comply with general municipal law requirements regarding competitive procurement practices, and its actions are subject to the requirements of the State Environmental Quality Review Act (SEQRA.) As a public organization, the DCWWA is subject to Open Meetings and Freedom of Information Laws.

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The DCWWA is governed by a Board of Directors appointed by the County Executive and the County Legislature, for staggered five year terms. Ex-officio board members include the Dutchess County Commissioner of Planning and Development, and the Manager of the County Soil and Water Conservation District. The DCWWA has a full time professional staff of 20 including management, project and administrative staff, a staff engineer and licensed water and sewer operators. The DCWWA operates its systems with a combination of staff and contract operators.

The DCWWA currently owns and operates eleven water systems, three sewer systems and one water transmission system, located within ten different municipalities. Collectively these systems serve just over 4,100 residential and commercial customer connections. Since 1995, the DCWWA has completed over $45 million in capital improvement projects, the largest of which was the $23 million Central Dutchess Water Transmission Line.

System Description

Greenfields Water District

The Greenfields Water District is located in the southeast corner of the Town of Hyde Park, New York and situated near the intersection of County Route 39 (Cream Street) and Windmill Road. The Greenfields Water District (Service Area Map: Appendix D) has 404 individual properties and 281 connected customers. The Town District is comprised of 194 detached single family developed lots, 79 attached single family dwellings, eight (8) two family dwellings, one (1) water treatment plant parcel, one (1) sewage treatment parcel, two (2) Town owned park parcels, one (1) open-space parcel and 118 undeveloped lots.

Physical Facilities

Water Supply and Treatment System

The District uses ground water from four functional wells, out of the twelve that have been developed over time. The remaining eight wells have been abandoned due to quality and/or quantity concerns. Sodium tri-polyphosphate is added to the water to sequester iron and manganese. The ground water from the wells is disinfected with sodium hypochlorite, and stored in three buried tanks. Water is again disinfected and then sent to the system on demand using system supply pumps and two hydropneumatic tanks. There are no booster stations within the distribution system.

Transmission and Distribution

The Greenfields Water District distribution system includes approximately 4,300 linear feet of 8-inch asbestos cement (AC) pipe and 15,600 linear feet of 6-inch asbestos cement (AC) pipe. Service laterals include ¾-inch copper to the single family residences and individual condominium units within Greenfields. There are currently eighteen flushing hydrants located in

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the system. The water system as originally designed and built does not provide fire protection.

Engineering Evaluation

An engineering evaluation of the Greenfields System may be reviewed in the full text of the Greenfields Water District Evaluation Report prepared by T&B Engineering, P.C. (Appendix A.) A brief summary of the report is provided below.

As the Greenfields Water System is now about fifty years old, and with minimal reconstruction or rehabilitation projects undertaken under the Town's ownership, it is generally recognized that most system components are beyond their typical service life. Despite the age of the system the facility was deemed to be generally in good condition by the evaluating engineer, but will require some improvements to remain successful.

Source Capacity and Quality Evaluation

The Greenfields Water District has four active groundwater supply wells – Wells 9, 10, 11, and 12. The District formerly included Wells 1 through 8, which have each been abandoned over the years due to either insufficient yield or poor water quality. The four active wells provide variable quality and production capability. With a total combined capacity of 116 gallons per minute (gpm) from the three of four wells, the system has sufficient capacity to comply with the required standard of meeting the average day 30 gpm and maximum day demand of 49 gpm with the best well out of service. According to the system operators, Well 10 is the highest yielding well, and Wells 9 and 11 are also cycled with this well. In February/March 2014 Well 10 was pumping sand. This caused excessive wear of the pump shorting its life expectancy. Sand entry was ultimately attributed to a failed raw water line at the well head. The associated production meter, scoured by sand, eventually failed and was replaced. Well 12 is operated on a timer and utilized on a limited basis due to reported poor water quality because of high levels of iron and manganese. A 2005 report by HDR Engineering indicated that, during periods of drought, the production rate of the wells exceed the recharge rate of the aquifer. As noted previously, prior to Wells 9 through 12, the original District wells (1 through 8) were abandoned due to water quality or production issues that developed over the lifetime of the well. Most recently, Current production rates for the wells versus the original rated capacities suggest that the capacity of the wells may be decreasing over time.

The District has historically had issues with high iron and manganese levels dating back to 1976, when iron and manganese treatment was first recommended. Violations of manganese as well as total iron/manganese were noted in 2001, 2004, 2006, 2007, 2012, and 2013. Most manganese samples are greater than the New York State MCL of 0.3 mg/L, and the combined iron and manganese levels are above the MCL of 0.5 mg/L as well. Official correspondence from DCDOH regarding the exceedences began in 2001, when levels of both iron and manganese exceeded the DOH requirement, and DOH required that the District provide an iron and

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manganese treatment facility. There is currently no physical removal process for iron and manganese at the facility. However, sodium tri-poly phosphate is used to sequester iron and manganese, with some effectiveness according to historical reports. While the Town Engineer, Morris Associates, maintains that this form of treatment is in accordance with 10 State Standards, DCDOH has continued to issue violation notices, most recently in 2013, for failure to install suitable treatment. The effectiveness of the sequestering agent will need to be monitored moving forward to determine if additional action will be required. Additionally, Morris Associates has noted (in a 2004 report) that bacteria has been a problem in the distribution system, most likely due to iron and manganese reducing chlorine levels in the distribution system.

Fire Flow and Pressure Evaluations

Based on the amount of current atmospheric storage, available fire flow is not sufficient to provide fire flow to the system. Current available fire flow would be provided by the transfer pumps (if pump capacity were sufficient, but this could not be determined) but would be limited by the groundwater well pump capacities taking into account the amount of atmospheric storage.

Future Demands

There is the potential for the development of 119 parcels, in the "Greenfields East" area. Based on the existing demand per customer, the anticipated potential future flows as the result of development of the "Greenfields East" area are 82,000 gpd (57 gpm) average day demand and 135,000 gpd maximum day demand (94 gpm). Based on the capacity related issues of the existing wells, developing the remaining 119 parcels would strain the capacity of the wells beyond an acceptable level, and would potentially exacerbate the existing water quality related issues. The evaluating engineer has recommended that additional sources of supply would be required prior to connection of additional services to the existing system.

The evaluating engineer recommended that a hydrologic study be completed to determine the current capacity of the groundwater wells. Also, that instrumentation be provided to monitor water levels in the wells, so that potential issues with drawdown and recharge can be better tracked and anticipated.

Also, depending on the evaluation of alternatives for the District regarding installation of treatment equipment and storage versus an interconnection with DCWWA in Hyde Park (discussed later in the report), if the District is maintained as an individual water District, the evaluating engineer recommended that the District evaluate the potential for the development of a new production well.

Water Treatment Building, Wells and Storage

There are several mechanical and safety issues that must be addressed immediately and in the next five years, including new booster pumps, piping and chemical feed system upgrades to

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address safety concerns, and a new roof.

The Evaluation Report includes recommendations for system improvements, organized by the priority level assigned to the recommendation.

Urgent Items represent those issues that should be addressed immediately, including security concerns, OSHA safety, fire/smoke protection and sanitary concerns. Specific recommendations include:

- Provide labels on chemical storage tanks and piping
- Provide secondary containment for chemical storage
- Provide lockable well caps (four wells)
- Provide label for Well 11
- Provide fire extinguisher
- Provide eye wash station
- Screen vents on atmospheric tanks
- Provide lock on atmospheric tank manhole
- Determine ISO fire flow requirements for existing Townhouses

Short Term Items are recommended to be addressed in the next five years or fewer. Key recommendations include:

- Perform additional iron and manganese sampling for individual well raw water samples
- Post “no trespassing” signs
- Trim branches and brush
- Address easement issues – purchase land from Town
- Install protection for propane piping
- Remove unused concrete pads and identify remaining obstacles with safety yellow paint or other identifier
- Conduct flow testing for wells
- Conduct pilot testing for iron and manganese treatment
- Provide level instrumentation for wells
- Construct iron and manganese treatment facility
- Replace piping in building and provide pressure gauges
- Replace booster pumps
- Replace flow meters (4)
- Re-grade around Wells 9, 10, and 11
- Replace sample taps (4)
- Provide redundant metering pumps (4)
- Clean and inspect atmospheric tanks
- Rehabilitate masonry joints
- Repair pump pad
- Repair and repaint gable end panels

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- Repaint exterior walls
- Replace roof
- Repaint door and frame
- Replace electric panelboard
- Replace emergency light fixture
- Provide dehumidifier and sump pump
- Repair Well 9 conduit
- Clean up instrumentation wires
- Provide door contacts and smoke detector and connect to alarm system

Long Term Items are recommended to be addressed in the next six to fifteen years. Key recommendations include:

- Replace well pumps (2)
- Replace chemical day tanks
- Replace floats in atmospheric tanks
- Replace unit heater
- Provide interconnection with DCWWA Hyde Park – including water mains, booster pump station with re-chlorination equipment, and atmospheric storage tank in the Greenfields Water District

Recommended Studies:

- Conduct flow testing for wells
- Perform additional iron and manganese sampling
- Determine fire flow requirements for townhouses

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Distribution System

The distribution system consists primarily of asbestos cement pipe. Asbestos cement pipe of this era can be expected to have a lifetime of at least 70 years under good conditions. However, under the soil conditions present in the Hyde Park area, asbestos cement pipe has been known to deteriorate after 30 years of use and often require replacement after only 40 years. The distribution system was found to be in good condition, with no significant history of water main failures.

While the number and location of hydrants is generally sufficient for flushing purposes, there are five dead ends in the system that lack flushing hydrants. Flow for flushing capacity would be provided by the transfer pumps. Whether the capacity of the pumps is sufficient to achieve the desired flushing velocity is unknown, as the design capacity of the transfer pumps was unavailable.

Long Term Items are recommended to be addressed in the next fifteen years. Key recommendations include:

- Replace fire hydrants

Add five additional hydrants at dead end streets

Cost Estimates

The following table, excerpted from the Evaluation Report, summarizes the anticipated investment required in the system for the Urgent, Short Term and Long Term Items. For additional detail refer to Sections 2 of the Evaluation Report. Note that the table below includes the estimated total project cost, but does not include projected cost escalation over time. For additional breakout, refer to Appendix D of the Evaluation Report.

Action Category	Total Capital Cost
Urgent	$ 23,700
Short Term Planning/Studies	$ 86,300
Short Term – 5 Years or Less	$ 389,900
Short Term – Treatment Expansion	$ 1,474,500
Long Term – 15 Years or Less	$ 278,500
Total	**$ 2,252,900**

The Evaluation Report also considered the potential for an interconnection between the Greenfields Water District and DCWWA Hyde Park Regional Water District. The interconnection to the DCWWA Hyde Park Regional Water District via Zone D Water District (aka Haviland Road/Harbourd Hills Area) illustrates one possible interconnection route between the two service areas. Significant differences in elevation would necessitate a pump station capable of achieving fire flows. Additionally, the interconnection expenses will include water main, a new elevated storage tank, and re-chlorination equipment in the aforementioned booster pump station.

Interconnection Alternative	Total Capital Cost
Interconnection with Hyde Park System	$ 5,539,600

At such time as major improvements are required or the current water supply declines in quality and/or quantity, the District may benefit from interconnection to the Hyde Park Regional Water System. The benefits include provision of fire protection, improved water quality and economic stability associated with spreading production, treatment and storage costs with the considerably larger Hyde Park Regional Water System customer base. When considering replacement of current infrastructure versus an interconnection, the District must weigh both the capital cost and operations and maintenance costs over the full life- span of the infrastructure. For example a

new treatment plant has a life span of thirty years with ongoing maintenance, while a modern transmission main will typically operate in excess of seventy-five year. At this time, no interconnections are planned.

FINANCIAL REVIEW AND EVALUATION

The Town of Hyde Park annually develops a budget to operate and maintain the Water System, taking into account anticipated expenses for labor, electric, chemicals, insurance, laboratory fees and so on. Additionally the budget includes anticipated repair expenses that are typical with a system of this age. A public hearing is held on the proposed District budget in conjunction with Town's overall budget development process.

Water Rates

The typical district customer operation and maintenance bill includes a quarterly charge of $42.50, up to the first 10,000 gallons, plus a charge of $4.25 per thousand gallons beyond the minimum usage. The below table depicts annual cost per customer.

Table: Water Rates and Typical Cost Per Customer

Charge	Type	Rate	Typical Annual Charge Per Customer
Flat Rate Water	Quarterly Charge	$42.50	$170
Metered Rate	Usage Charge	$4.25/1000 gal	$75*
		Grand Total	**$245**

** Based on 160 gallons per day for typical residential customer.*

The Town reports no change in the rates in recent years. No rate change is anticipated for 2015.

Multi-Year Expense and Revenue Evaluation

For purposes of this Report, actual revenues and expenses for 2011 through 2013 were evaluated, as were the projected revenues and expenses for 2014, and budgeted revenues and projections for 2015. A summary presentation is provided in the table below.

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GREENFIELDS WATER DISTRICT
Multi-Year Budget Evaluation

	2011 ACTUAL	2012 ACTUAL	2013 ACTUAL	2014 ADOPTED BUDGET	2014 ADJUSTED BUDGET	2015 ADOPTED BUDGET
Beginning Fund Balance	**199,455**	**198,770**	**211,980**	**175,031**	**175,031**	**139,031**
Annual Expenses	**59,066**	**72,657**	**105,248**	**90,000**	**106,000**	**90,000**
Power/Chemicals	8,918	13,003	15,051	16,176	15,476	17,000
Operations	25,612	25,319	25,400	26,400	26,400	25,400
ERM	11,956	20,051	47,377	23,424	39,124	22,600
Lab/Sampling/Permit	3,860	1,857	4,267	3,000	4,000	5,000
Administration	8,377	9,113	10,100	17,000	17,000	17,600
Legal/Engineering	343	2,315	2,053	3,000	3,000	1,400
Insurance	-	1,000	1,000	1,000	1,000	1,000
Annual Revenues	**59,066**	**85,866**	**105,247**	**90,000**	**106,000**	**90,000**
Water Sales/Penalties	58,381	85,866	68,298	64,000	70,000	50,000
Transfer from Fund Balance	685		36,949	26,000	36,000	40,000
Ending Fund Balance	**198,770**	**211,980**	**175,031**	**149,031**	**139,031**	**99,031**

Equipment repair and maintenance expenses have had the largest impact on the District's budget over the past few years. A significant portion of this expense has been work to repair and replace distribution system flushing hydrants, an important improvement given the system's high iron and manganese levels.

The District is also being impacted by increases in other costs. Due to utility rate hikes, electric rates have increased throughout the region. Under the current Administration, the Town has taken steps to understand and more appropriately assign value to the level of effort required by Town personnel to administer each water and sewer system under its purview. Accordingly, the Town has annually increased its administrative charges to the system, and intends to continue to do so until the budgets reflect the full value of services provided.

Through the system evaluation, the need for increased oversight from professional management has become evident. As the System ages the need increases for this type of management. At the time of this writing, the District enjoys pro bono engineering consulting services to assist with oversight of operations of its water and sewer systems, provided by the Town engineering consultant currently under retainer for all other engineering services to the Town. This situation is considered a temporary stop gap measure until a permanent solution involving professional management can be arranged or the districts are transferred to the DCWWA. If the stop gap measure is to become the norm, it is generally acknowledged that the systems should contribute toward the Town's annual engineering retainer fee.

System fund balance is the difference between a District's current assets and its current liabilities. Any fund balance which is not designated or reserved for specific purposes serves as a general operating contingency fund for the District, to provide for cash flow and to enable the District to respond to unanticipated events or emergencies during the year. The determination of

the appropriate level of fund balance to maintain should also take into account the projected cost of needed system maintenance and improvement items that have been identified, and the plan for financing those improvements.

The District ended 2012 with over $200,000 in fund balance. During 2013 and 2014, the District has appropriately drawn on fund balance to cover important system repairs, such as the hydrant work discussed above. Based on the Adjusted 2014 budget, the District is projected to have about $140,000 in fund balance going into 2015. While the adopted budget shows an allocation of $40,000 of fund balance applied to offset expenses, it appears, based on historical results, that the Budget may understate water sales revenues, and the actual amount of fund balance remaining at the end of 2015 could be closer to $120,000, assuming the District maintains the current rate.

The engineering evaluation identified over $400,000 in Urgent and Short Term improvement items needed, in addition to the need for iron and manganese treatment and potential future need to develop additional wells. Another $86,000 in study costs was identified as necessary to address the larger issues of water treatment and well capacity. The most appropriate use of the District's remaining fund balance is to address the prioritized Urgent and Short Term Improvements. As this work will deplete the remaining fund balance, it should be recognized that District user charges, currently well below state-wide and local averages, will need to gradual increase.

Potential future water district bonding and State Tax Cap implications

Many of the Short and Long Term Items identified in the engineering evaluation constitute major repairs or renovations which will materially extend the useful life of capital assets and are, therefore, appropriate to be financed through long term bonds. As permitted by Town Law §202, a Special District, such as the Greenfields Water District, may levy special assessments on benefited property within the district to fund capital improvements. The Town of Hyde Park Board serves as the governing board for the Greenfields Special District and has the power to levy special assessments (benefit assessments) on benefited properties within.

In accordance with "The Property Tax Cap Guidelines for Implementation" published by the NYS Department of Taxation and Finance and the NYS Department of State (Publication 1000 9/11), for the purposes of the New York State Property Tax Cap Law, any such benefit assessments levied by the Town in the District must be applied to the tax levy limit of the Town. Under this scenario, the Town may be forced to adjust the Town wide budget to remain under the tax cap limit or breach the cap in order to finance repairs within a Special District such as the Greenfields Water District.

Proposed Transfer of Ownership to DCWWA

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Benefits of transfer to DCWWA

The stated mission of the DCWWA is, "to protect and enhance the health, environmental sustainability and economic stability of Dutchess County and its residents through the provision of clean drinking water and proper treatment of wastewater, acting at all times with a commitment to accountability and transparency." Through strong operational oversight and sound fiscal management, the DCWWA is committed to providing reliable service to its water and sewer system customers at a reasonable cost commensurate with the cost of proper operations.

All meetings of the DCWWA Board of Directors are open to the public. Through the website www.DCWWA.org, the public has access to annual drinking water quality reports; approved system rates; board meeting schedules, agendas and minutes; and emergency contacts information. Via this website, customers and interested parties may receive timely advisories and alerts, including emergency notifications and announcements of routine system maintenance, such as water line flushing. Customer newsletters mailed with every utility billing statement contain 24/7 emergency contact information, updates on improvement projects, and reminders regarding the basic rights and responsibilities between the customer and service provider.

The DCWWA maintains sound fiscal management practices and controls in accordance with government accounting and other applicable standards and guidelines. Policies addressing Procurement, Accounting, Investment and Banking, and Property Disposal are annually reviewed and adopted, and are available to the public. The DCWWA is subject to an annual audit by an independent, certified accounting firm. As the owner of fifteen public water and sewer systems, the DCWWA's significant purchasing power and strong emphasis on competitive procurement leads to more economical pricing for goods and services ranging from contract operations to sludge hauling and chemical purchases.

The DCWWA Board is responsible for annually approving budgets and establishing rates for each system. Draft budgets and rates are prepared in early November, and made available to customer advisory committees, local elected officials and interested customers. Proposed rates are posted on the DCWWA website. A public hearing on the draft budget and rates is held in mid-November. Budgets and rates are approved by the Board at its December meeting. Final rates are distributed to all customers in the next bill mailing and posted on the Authority website.

DCWWA staff includes a licensed engineer and experienced water and sewer operators that hold the highest levels of licenses and certifications. This strong and knowledgeable management provides the opportunity to monitor and address issues in a timely manner, to ensure regulatory compliance and continuity of service, to ensure routine maintenance is completed thereby prolonging equipment lifecycles and avoiding unnecessary repairs, and to avoid unintended consequences with serious negative outcomes.

The DCWWA annually develops and adopts a 5-year capital improvement plan for its water and wastewater systems. The project management capabilities of a full-time professional staff enable

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DCWWA to consistently complete major capital improvement and expansion projects on-time and on-budget. DCWWA enjoys an "AA" rating from Standard & Poor's, allowing it to bond for capital improvement projects at low interest rates. In addition, the DCWWA has often been successful in obtaining grants and low-interest loans to keep project costs as low as possible.

Ownership and Operation of Greenfields under DCWWA

DCWWA operates its water and sewer systems with a combination of staff operators and contract operators. Should ownership of the Greenfields Water System be transferred to DCWWA, the current contract operator would be retained to ensure a smooth transition. Oversight of the contract operator would be provided by DCWWA's Director of Operations with assistance from its System Operations and Maintenance Specialist. DCWWA solicits proposals for contract operations on a three year cycle. DCWWA will periodically analyze whether it is more cost effective to continue to use a contract operator for Greenfields, or to assign DCWWA staff to operate the System.

A projected 2015 system budget has been prepared by DCWWA, and is presented in summary form below. This budget projection assumes the System is transferred to the Authority during 2015. Should the system be transferred mid-year, the budget would be pro-rated for the portion of the year DCWWA would own the system.

DCWWA 2015 BUDGET PROJECTION
Greenfields Water District

Beginning Fund Balance	**139,031**
Annual Expenses	**91,702**
Power/Chemicals	18,270
Operations	25,215
ERM	20,500
Lab/Sampling/Permit	5,348
Administration	20,619
Legal/Engineering	750
Insurance	1,000
Annual Revenues	**91,702**
Water Sales/Penalties	91,702
Transfer from Fund Balance	-
Ending Fund Balance	**139,031**

DCWWA's recommended budget reflects a small (2%) increase over the Town's adopted 2015 spending plan, reflecting a higher estimate for electric costs, and more pro-active system management to address long-term problems (water treatment and source capacity issues.) Were DCWWA to allocate $20,000 in fund balance to offset expenses (the actual amount it appears the Town would need to allocate to maintain its current rate), the average annual cost per customer would increase by the same 2% to about $250. With no allocation of fund balance to offset current expenses, customer rates would increase approximately 33%, to an average annual cost of $325, an increase of just under $7.00 per month, and still well below the statewide average annual cost for public water systems.

As of this writing, the Town has addressed several of the "Urgent Items" identified in the engineering evaluation, including the provision of secondary containment. DCWWA has evaluated and prioritized the remaining Urgent Items, most notably the need for improved well security. With the assumption that many of the tasks could be completed by contract operators and DCWWA staff, DCWWA projects that these items could be completed for a total cost of approximately $3,600. It is proposed this work be completed through a combination of current revenues and an appropriation of system fund balance.

DCWWA has assessed and prioritized the remaining items, and prepared revised cost estimates for those items that can be completed by operations staff. Including $5,000 to conduct additional raw water sampling for iron and manganese, but no other study items identified by the engineer, DCWWA estimates a projected cost of about $110,000 to complete what it considers to be the priority Short Term Improvement Items. Further discussion is needed with District representatives to determine the most appropriate use of remaining fund balance, taking into account the necessary system improvements balanced against customer rate affordability. Allocation of fund balance to offset rates will postpone, but not eliminate, the need to raise rates to generate sufficient revenues to properly operate and maintain the system.

DCWWA recommends that the replacement of the booster pump skid and electric panel boards, and building repairs and improvements be deferred until a determination is made of the most appropriate response to the iron and manganese issue, as the selection of the option could significantly impact the system's treatment building, pumping capacity and electrical requirements. The cost of preliminary work beyond what can be funded through fund balance could be funded through a short-term bond anticipation note, to be rolled into the long term borrowing to fund the selected construction project. DCWWA would seek grant and low-interest loan funding to help reduce the cost impact of the project on the customers.

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DISCUSSION OF STEPS AND TIMELINES TO ACHIEVE TRANSFER

Upon final completion of this Reorganization Study and after the Town has held the required public hearing on the Study, the Town may then formally accept this Reorganization Study. It is anticipated that the Town would then make a final determination on whether to proceed with the transfer of ownership of the Greenfields Water System and the dissolution of the Greenfields

Water District. Should the Town opt to proceed, the steps would be as discussed below.

Provisions of General Municipal Law Article 17-A process for Dissolution

The recently enacted "New York Government Reorganization and Citizen Empowerment Act" establishes procedures in Article 17-A of the General Municipal Law for the dissolution of special improvement districts, such as the Town of Hyde Parks water and sewer districts. The dissolution of a special district can be initiated by a citizen's petition, or by action of the governing body. This project relates to the dissolution of a special district initiated by the governing body.

A Proposed Dissolution Plan, meeting the requirements of Article 17-A, has been developed as part of this Reorganization Study, and is included as Appendix D to this report. Should the Town Board decide to proceed with the possible dissolution of the Greenfields Water District, its first step would be to adopt a resolution endorsing the Proposed Dissolution Plan. After the endorsing resolution is adopted, the Proposed Dissolution Plan is to be made available for public review, and a public hearing held, no less than 35 days and no more than 90 days, after adoption of the Town's endorsing resolution.

After completion of the public hearings, the Town may amend the Dissolution Plan, approve a final Dissolution Plan, or decline to proceed further with dissolution proceedings. A decision by the Town to proceed with dissolution must be made within 180 days of the Town's endorsing resolution.

The DCWWA's ability to accept ownership of the Greenfields Water System is predicated on the creation of a County Water District Zone of Assessment by resolution of the County Legislature, as discussed below. As this is a discretionary action by the Legislature, and one which may be subject to a public referendum, it is recommended that the Town defer its final approval of the Dissolution Plan until after the Zone of Assessment is established.

Creation of Part County Zone of Assessment

As the first step in the transfer of ownership of the Water System, the DCWWA would request that the County form a new Zone of Assessment within the County Water District. The purpose of the Zone of Assessment is to delineate those properties that are provided services by the Greenfields Water System, and to enable Dutchess County to levy assessment on the DCWWA's behalf to fund debt service on any bonds issued for capital improvements to the System.

The creation of a Zone of Assessment (Zone) within the County Water District would be established pursuant to the provisions of Article 5-A of New York State County Law. The DCWWA would prepare and submit to the Legislature a Map, Plan and Report (MPR) containing the information required for the formation of a proposed Dutchess County Water District Zone of Assessment including; the properties to be included; a description of the current

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and proposed infrastructure by which water will be treated and conveyed; the estimated capital expenditure for the acquisition, construction or improvement of the facilities; and an estimate of the total annual cost (capital and operation and maintenance) for a typical property included in the proposed Zone.

The Legislature must hold a public hearing before acting, by resolution, to create the Zone of Assessment. The resolution of the Legislature is then subject to a forty-five (45) day permissive referendum period. A referendum on the County Legislature's action is triggered by a petition signed by 5% or 100, whichever is lesser, of the owners of taxable real property within the proposed district. Eligibility to vote in a referendum under County law is limited to "resident electors," being individuals who are registered to vote and reside within the proposed district. Eligible voters do not need to be property owners. The action of the County Legislature is upheld if approved by majority of those voting in the referendum.

Legal Issues

In accordance with the opinion of the Town Attorney (Appendix B) and the Draft Dissolution Plan (Appendix D) there have been no issues identified that would prohibit or impede either the transfer of ownership of the Greenfields Water System to the DCWWA nor the dissolution by the Town of the Greenfields Water District.

State Property Tax Cap Implications of Transfer

User fees, such as the quarterly flat rate and usage charge, are not taxes subject to the levy limit. Relevies of delinquent user fees are not subject to the tax levy limit of the local government which relevies or levies the charges. A unit based benefit assessment is subject to the limit; however at the time of this report the District carries no such charges. For these reasons, the Greenfields Water District and thereby the Town of Hyde Park, as the governing body, is not currently subject to the tax cap for this system.

Final Transfer and Dissolution

Upon successful formation of Zone of Assessment by the Dutchess County Legislature, and final approval of the Dissolution Plan by the Town, ownership of the Water System would then transfer to the DCWWA in accordance with the terms and conditions set forth in an agreement between the DCWWA and the Town of Hyde Park for the transfer of all system assets including real and personal property, accounts payable/receivable and current funds on hand. DCWWA would be responsible for applying to the NYS Department of Environmental Conservation for a Water Supply Permit and to DC Department of Health for the required Permit to Operate a Public Water Supply. All assets of the District transferred to DCWWA shall be used for the benefit of, and specifically to meet the continued obligation to supply water to, the properties that comprise the current District.

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