



**ADMINISTRATION & FINANCE COMMITTEE
MEETING MINUTES of
Tuesday, May 8, 2018, 4:00 p.m.
PV Water “Koenig” Conference Room**

Director Imazio called the meeting to order at 4:10 p.m.

1. Welcome and Introductions:

Committee members: Rosemarie Imazio (Chair), Robert Culbertson III (absent),
Dwight Lynn

Staff: Brian Lockwood, General Manager (absent), Teresa Delfino, Finance & Administrative Services
Manager (FASM), Nancy Trevino, Financial Analyst (absent)

Public: None

2. Director Comments: None

3. Public Comments: None

4. Consider Approving Minutes of previous (April 10, 2018) Committee Meeting: The Committee reviewed, and approved the Minutes from April 10, 2018 meeting by consensus.

5. Annual Review of Administration and Finance Committee Bylaws: The Committee reviewed the Bylaws.

6. Review and Consider Accepting Financial Reports for March 2018: The Committee reviewed and accepted financial reports for March 2018.

7. Review and Consider Accepting Cash Flow Reports for April 2018: The Committee reviewed and accepted Cash Flow reports for April 2018 by consensus.

8. Discuss future agenda items and next meeting date: Next meeting date set for Tuesday, June 12, 2018, 4:00 p.m.

9. Meeting adjourned at 4:45 p.m.

MEMORANDUM

DATE: June 6, 2018
MEETING OF: June 12, 2018
TO: Administration and Finance Committee
FROM: General Manager
RE: **ITEM 5:** Review and Consider a proposed Scope of Work and Budget with the U. S. Geological Survey for a Continuation of Hydrologic Modeling Services, Land Subsidence Analyses, and Streamflow Data Collection

INTRODUCTION

During the Administration and Finance Committee Meeting, PV Water and USGS staff will describe the purpose and need behind the proposed scope of work and answer questions regarding a joint funding agreement with the United States Geological Survey (USGS) for a Continuation of Hydrologic Modeling Services, Land Subsidence Analyses, and Streamflow Data Collection.

BACKGROUND

HYDROLOGIC MODELING

At the September 21, 2005 meeting of the Pajaro Valley Water Management Agency Board of Directors, the Board unanimously approved a joint funding agreement with the USGS to develop a new hydrologic flow model utilizing code in the public domain. The Agency had used an older model called the Pajaro Valley Integrated Groundwater Surface Water Model (ISGM) to support the development of the 2002 Revised Basin Management Plan. The USGS developed the new model using MODFLOW and the Farm Process. The Board established a Technical Advisory Committee (TAC) to oversee and guide the development of the Pajaro Valley Hydrologic Model (PVHM). The official members of the TAC were selected by invitation and included board members, academics and technical representatives from adjoining hydrogeologic areas. The TAC was run by a third party moderator. Throughout the PVHM development, the TAC met with the modeling team nine times to discuss and concur with selected approaches to modeling issues and assumptions. At the final meeting of the model TAC, which took place on May 28, 2010, the members present provided unanimous consensus that the PVHM is impressive, defensible, and is the best effort possible given current understanding of the basin. Once accepted, staff used the PVHM to provide information to inform the development of the Basin Management Plan Update (2014).

In 2014, the USGS published [Scientific Investigations Report 2014-5111 “Integrated Hydrologic Model of the Pajaro Valley, Santa Cruz and Monterey Counties, California](#). Also in 2014, the Board approved a joint funding agreement with the USGS to update the PVHM with more current datasets and conduct climate change simulations (the USGS will be presenting the results of this work during the June 20, 2018 meeting of the Board of Directors). At about the same time, Governor Brown signed the Sustainable Groundwater Management Act (SGMA) into law.

THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The Governor signed into law a three-bill legislative package collectively known as the Sustainable Groundwater Management Act (SGMA) on September 16, 2014. SGMA established a new structure in California that gives local agencies the means to manage groundwater basins in a manner that is

sustainable over the long-term. “A central feature of these bills is the recognition that groundwater management in California is best accomplished locally.” (from Gov. Brown’s signing message).

SGMA defines sustainable groundwater management as the “management and use of groundwater in a manner that be maintained during the planning and implementation horizon without causing undesirable results.” Undesirable Results are defined in SGMA and are summarized as any of the following effects caused by groundwater conditions occurring within the basin:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality
- Significant and unreasonable land subsidence
- Surface water depletions that have significant and unreasonable adverse impacts on the beneficial uses of surface water

SGMA requires critically-overdrafted high and medium priority basins to be managed under a Groundwater Sustainability Plan (GSP) by January 31, 2020, and to achieve sustainability by 2040. The Department of Water Resources (DWR) Bulletin 118 – 2003 Update identifies 515 groundwater basins in the state: 43 are high priority and 84 are medium priority. The Pajaro Valley Basin is considered a critically-overdrafted, high priority basin.

In August 2015, the Board of Directors approved Resolution 2015-25 Electing to be a Groundwater Sustainability Agency under the Sustainable Groundwater Management Act. In December 2016, the Board approved Resolution 2016-16 Authorizing the General Manager or Designee to Submit the Basin Management Plan Update and Associated Agency Documents as an Alternative to a Groundwater Sustainability Plan under the Sustainable Groundwater Management Act to the California Department of Water Resources. As of June 6, 2018 the Agency has not received a response from DWR regarding its alternative submittal.

DISCUSSION

Staff prepared the following proposed scope of work in collaboration with the USGS to improve, update, and expand the capabilities of the PVHM, one of the Agency’s principal planning tools. The proposed scope of work also contains tasks to collect data and to conduct analyses that will help staff identify and address potential undesirable results. The proposed scope of work includes eight tasks, which are listed below and described in the attached proposal, that would be completed over the course of 3+ years (through Federal Fiscal Year 2021).

1. Model Updates
2. Model Calibration
3. Assist with Development of SGMA Metric Development
4. Develop Budget and SGMA Metric Tools
5. Model Update Documentation and Training
6. Stream Gauging to Better Quantify Surface Water Resources
7. Evaluation of Land Subsidence
8. Reporting

Staff have been working with the USGS to develop the first “self-updating” model. The self-updating capability will save significant resources in time by enabling staff to keep the model current. The USGS continues to refine and improve this capability. Task 1. Model Updates includes support for this effort. Task 2. Model Calibration will help to ensure the PVHM is as accurate of a planning tool as possible, given the updated datasets that include a historic drought and exceptionally wet year. The PVHM was last calibrated in 2009.

Given the requirements and challenges of SGMA, staff have worked with the USGS to develop two tasks to support the Agency’s SGMA compliance efforts. As part of Task 3. SGMA Metric Development, the USGS will work with staff and future SGMA stakeholder committees to assist with the development of sustainable management criteria. As part of Task 4. Develop Budget and Metric Reporting Tools, the USGS will work with staff to develop an automated framework within the PVHM to facilitate SGMA reporting of items including but not limited to annual water budgets, changes in groundwater storage, and changes in coastal inflows (seawater intrusion). Another model-based task includes supporting and training staff to develop and document a program to complete regular updates of the PVHM (Task 5). This task will result in more uses of the PVHM, bringing even more value to the tool the USGS and the Agency have been developing since 2005.

To help answer the SGMA question relating to groundwater – surface water interactions, staff proposes retaining the USGS to deploy and maintain an additional stream gauge on the Pajaro River, most likely at Murphy Crossing. The reach of the Pajaro River between Chittenden Gap and Murphy Crossing is where the greatest amount of streamflow infiltration occurs. The USGS already maintains a gauge at Chittenden; a gauge at Murphy Crossing would help to quantify the volume of recharge. This information could be used in turn to refine the PVHM. The data would be available online and hosted on the USGS streamflow website.

SGMA requires Groundwater Sustainability Agencies to evaluate if land subsidence exists and to take management actions to stop any significant and unreasonable subsidence if it is occurring. For Task 7, the USGS will conduct a land subsidence analysis to answer the question of whether land subsidence is occurring in the Pajaro Valley. The final task (8) is a reporting task that will make the findings of the above work accessible to stakeholders and other interested parties.

FISCAL IMPACT

The total cost for the proposed work would be \$608,301, spread over four federal fiscal years (Oct. 1 through Sept. 30). The cost to the Agency would be \$553,328, with a USGS cooperative match of \$54,973. A more detailed breakdown is provided in the attached scope and budget.

In May, DWR notified the Agency of a conditional \$1,500,000 Proposition 1 Sustainable Groundwater Planning grant. This grant would fund a to be determined portion of the proposed work, however the grant is conditional on the rejection of the Agency’s Alternative Submittal.

STAFF RECOMMENDATION

That the Committee reviews and considers the attached scope of work and budget, and considers making a recommendation to the Board of Directors.

ATTACHMENTS

- Scope of work and budget for the Joint Funding Agreement with U. S. Geological Survey for a Continuation of Hydrologic Modeling Services, Land Subsidence Analyses, and Streamflow Data Collection

Pajaro Hydrologic Data and Hydrologic Model Updates

The following is a draft proposal, budget and timeline.

Task 1 — Model Updates

The USGS will work with Pajaro Valley Water Management Agency (PV Water) staff to update the model input data sets with observations and climate for the period between January 1, 2015 to December 31, 2020. Updates will occur in several phases (Table 1). The first phase will update the model through water year 2018. This update will occur in federal fiscal year (FFY) 2019. Federal fiscal years are aligned with water years as defined from October 1st through September 30th of the following year. The second update for water year 2019 will occur in FFY 2020. The third update for water year 2020 will occur in the first quarter of FFY 2021. This approach will leverage the new self-updating model structure for the PVHM developed in the previous scope of work where observation data can be imported as time series data to the model without having to recreate the model input files.

The USGS will help incorporate new data into the PVHM from the end of the last model update (2014) to the end of 2020. New observations includes but is not limited to data from land-use/crop distributions, groundwater elevation measurements, groundwater pumpage, streamflow, sea-level for boundary flows diversions, and Basin Management Plan Projects (BMPs), including managed aquifer recharge and recovery (MAR), the Coastal Distribution System (CDS), and recycled water operations.

The USGS will generate distributed climate input data sets and runoff estimates for ungauged tributaries using the Basin Characteristics Model (BCM) for input into the PVHM. The total cost for this task is \$38,898. This cost assumes that data will be received from PV Water using the self updating data input tools we designed as part of the last scope of work. These updates and related upgrades may require some recalibration of the model as part of model maintenance. The updates to model input files in Task 2 will facilitate regular model calibrations as needed.

Task 2—Model Calibration

The PVHM model was calibrated in 2009. An update to the model through 2014 was completed. After addition of several years of observations, the record drought, and model refinements, a recalibration of the model will likely improve model performance. The USGS will help reconfigure the model input into a structure that will facilitate periodic recalibrations as more data become available to keep the model relevant for current water management decisions, evaluations, and Sustainable Groundwater Management Act (SGMA) reporting.

After model updates from 2015 to 2018 are completed, the model input data sets will be put into a parameter estimation framework (PEST, <http://www.pesthomepage.org/PEST.php>). Model input file templates will be developed where input parameters are defined within the PEST framework. This framework will allow streamlined calibration for future model updates that will save time during annual model updates and periodic calibrations that may be required for SGMA reporting. Upon conversion to the PEST calibration framework, the model will be calibrated by PVHM staff with support from the USGS. Based on new input information, crop properties, such as crop coefficients (Kc), irrigation efficiencies, canopy, and runoff will be

updated. The model calibration period will be from 1963 to 2018. The total cost for this task is \$70,243.

Task 3—Assist with Development of SGMA Metrics and Milestones

For the SGMA, specific metrics and goals must be defined for evaluating and achieving sustainability. The USGS will provide assistance to PV Water staff and consultants for developing their sustainability metrics.

USGS will assist PV Water staff and consultants to develop an observation and analysis framework for SGMA undesirable effects reporting. USGS will assist in development of sustainable management criteria. Each criteria must have a sustainability goal, delineate undesirable results, and provide minimum thresholds to evaluate sustainability using measurable objectives. Milestones will be defined as indicators of successful basin recovery. The data used to define these criteria may include groundwater elevations at observations wells, surface water storage and surface water flows in the Pajaro River and its tributaries. The total cost for USGS support in development of SGMA metrics for federal fiscal years 2018 to 2020 is \$41,461.

Task 4—Develop Budget and SGMA Metric Reporting Tools

The SGMA requires annual reporting of groundwater sustainability metrics. These metrics can be derived from groundwater and surface water observations, and the PVHM. While budgets have been developed for previous PVHM updates, a more automated framework must be established to facilitate regular analysis of the basin for SGMA reporting.

USGS will help develop a reporting framework to generate graphical and tabular summaries of annual water budgets, sentinel groundwater wells, streamflow depletion, storage depletion, and changes in coastal inflows and groundwater/surface water interactions. This framework will help streamline the data needed for annual SGMA reporting. Model output data will be formatted and aggregated to provide the data for metrics delineated in Task 3. The SGMA Metric Reporting Tools will be an external post processing program that PV Water staff can use to generate supporting information for annual SGMA reporting. An excel based output interface will be employed so that minor modifications to figures (e.g. titles, axes, colors) can be easily made by PV Water staff. The total cost for development of SGMA reporting framework is \$57,290.

Task 5 – Model Update Documentation:

The USGS will continue to assist PV Water in developing a program to complete regular updates of the model, and to improve model outputs so it continues to meet the needs of PV Water. This ongoing training will enable PV Water staff to better utilize the model for required annual SMGA reporting.

The USGS will conduct regular meetings (e.g., monthly) with PV Water staff to train them on how to configure observation data for model input, update model data sets, and develop groundwater budgets and analysis for regular SGMA reporting. The meetings will also cover land use, stream flow routing, and head observation toolboxes, and provide a forum for

regular discussion of SGMA sustainable management criteria. Flow charts and summaries describing model update procedures, model execution, and model post processing will be developed and distributed to PV Water staff. The model updating procedure and SGMA reporting tools will be documented for the PV Water. The total cost for this task is \$67,975.

Task 6 — Stream gauge to better quantify surface water resources

Several proposed BMP projects for mitigation of groundwater overdraft in the Pajaro Basin rely on diversions from tributaries to the Pajaro River. Currently there are only 2 gauges in the groundwater basin located at Corralitos Creek (USGS gauge # 11159200) and Pajaro River at Chittenden (USGS gauge # 11159000). Therefore, an additional gauge will help better quantify 1) available water in the Pajaro Rivers and its tributaries, 2) spatial distribution of groundwater surface water interactions, and 3) groundwater recharge to the basin from streams. Moreover, SGMA sustainability metrics requires quantification of changes in groundwater surface water interactions (e.g. depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water). This additional gauge will enhance the PVHM model by providing additional observations for model calibration and analysis.

The USGS will install a gauge and associated equipment. The USGS Santa Cruz field office will take regular flow measurements and high flow measurements essential for quantifying surface water availability and provide regular operational maintenance of the gauge and associated equipment. Streamflow data will undergo a rigorous quality assurance and quality control procedure and the data will be made available to the public on the USGS National Water Information System. Annual gauge operations, maintenance, and measurements for the first year is \$26,500, following years assume 5% increase for inflation, equipment, and personnel. The gauge operations and maintenance include equipment replacement if equipment fails, is damaged, or removed during high flow events. After the conclusion of this amendment to the existing agreement, an ongoing contract for gauge operations and maintenance can be developed with the Santa Cruz field office. The estimated cost of the gauge installation is \$40,000, subject to the on site evaluation of specific equipment for the gauge. The total cost for installation and operation of the stream gauge for four fiscal years is \$154,212.

Task 7 — Evaluation of Subsidence

Given that land subsidence is an undesirable result of unsustainable groundwater use and is one of the six sustainability indicators of SGMA, it is advantageous to assess whether subsidence is significant in the Pajaro Basin. If land subsidence is not significant and unreasonable, it simplifies reporting of SGMA sustainability metrics and potential monitoring of subsidence. This can result in costs savings for the PV Water, allowing resources to be allocated to other SGMA related reporting. This task will consist of processing and analyzing data for the 3 year period between 2015 and 2018 for the Pajaro Valley Basin area (yellow box in Figure 1). This period includes both wet and dry years, which will better bracket rates of subsidence under the varied conditions.



Figure 1: Map showing approximate area for the subsidence analysis for the Pajaro Valley Basin (yellow box).

The evaluation of changes in land surface elevation through time can assess subsidence. Subsidence is comprised of two parts, an elastic part that is related to the ability of the aquifer material to return to initial conditions after reduction of pumping stresses and inelastic part that reflects permanent changes in storage and thickness of aquifer materials due to pumping. The inelastic portion of subsidence is the portion that is most relevant to water management and reporting for SGMA. Therefore, the analysis will evaluate inelastic subsidence through time through a multi-year study of changes in ground surface elevation using interferometric synthetic aperture radar (InSAR), a remotely sensed satellite data set. By evaluating land surface elevation changes for both wet and dry years, the magnitude of elastic and inelastic subsidence can be assessed. These analyses will provide a rigorous initial assessment of subsidence.

To evaluate subsidence in the Pajaro Valley Basin, the USGS will

- 1) Obtain InSAR data for 2015-2018 (about 10-12 European Space Agency Sentinel-1 satellite images per year) for Pajaro Valley Basin. These data provide high resolution data of changes in ground surface elevation. This allows for high precision (<0.1 ft) evaluation of changes in land surface elevation.
- 2) Obtain available Continuous GPS data (CGPS) and Light Detection and Ranging (LIDAR) data to examine land elevation changes at specific places in the Pajaro Valley Basin

- 3) Process InSAR data using CGPS and LIDAR data to calibrate and validate the analysis of land surface elevation changes.
- 4) Obtain and evaluate available water-level data
- 5) Analyze paired InSAR and water-level data for correlations between changes in land surface elevation and changes in water levels.
- 6) The USGS will publish a fact sheet or journal article of the subsidence analysis.

The total cost of this task is \$115,716.

Task 8 — Reporting

The USGS will publish a data release of the PVHM model updates. The model updates through water year 2020 will be released as a USGS data release, this is now the industry and USGS standard and required for models. Data are assigned a Digital Object Identifier and given a citable publicly accessible data source and can be hosted by the USGS or the PV Water. This data release will serve as the documentation of the model updates completed since the Scientific Investigations Report documenting the original model (Hanson and Others, 2014). This approach allows for complete transparency of model updates for SGMA reporting. The USGS will present results of the subsidence analysis, and project progress through regular updates to PV Water management and at least two presentations to the PV Water Board of Directors. The total cost of project reporting and data release is \$62,506.

Table 1 Project Milestones and Schedule

	Project Milestones			
	FFY 2018	FFY 2019	FFY 2020	FFY 2021
Task 1 Model Updates	Update Data to 2017	Update data through 2018	Update data through 2019	Update Data through 2020
Task 2 Model Calibration	Start to put in PEST structure	Continue PEST implementation/Calibration		
Task 3 SGMA Metric Development	Monthly Training/SGMA Metric Discussion	Monthly Training/SGMA Metric Discussion	Monthly Training/SGMA Metric Discussion	Monthly Training
Task 4 SGMA Metric Tools	SGMA Tool Development	SGMA Tool Development		
Task 5 Model Documentation and Training	Documenting Workflow	Documenting Workflow/SGMA Tools	Documenting Workflow/SGMA Tools	
Task 6 Stream Gage	Stream gauge installation	Stream gauge O&M	Stream gauge O&M	Stream gauge O&M
Task 7 Subsidence	N/A	Analysis		
Task 8 Reporting	Board Presentation	Publish journal/ Subsidence Fact Sheet	Data Release	Board Presentation

Table 2 Project Budget for Proposed Tasks



Pajaro Valley Water Management Agency Cash Reserve Policy

Introduction

The Pajaro Valley Water Management Agency (PV Water or the Agency) Cash Reserve Policy establishes general guidelines on cash reserves that will help to ensure the Agency's long-term financial and operational stability. In this capacity, the Cash Reserve Policy articulates a comprehensive set of reserves that seek to mitigate operational, capital, and debt service risks PV Water may encounter.

The Cash Reserve Policy is being established in the context of PV Water's current and expected capital improvement program and borrowings associated with the Basin Management Plan (BMP). Since reserve targets are based on certain assumptions and estimated costs and risks for PV Water, the Cash Reserve Policy and established reserve levels will be reviewed annually or more often if there is a material change in the risk exposures to PV Water. It is noted that the Cash Reserve Policy is established to provide general guidelines for fiscally responsible cash management. The Cash Reserve Policy is not intended to set strict limits that must be adhered to in a vacuum, nor is it intended to be all-inclusive in the sense that there remain a variety of factors outside the purview of the policy that could materially impact PV Water's financial condition. Certain risks and risk probabilities have been considered to be sufficiently remote or to require a scale of reserves that would be prohibitive as compared to the probability of such an outcome, and this policy does not purport to address such risks. Instead, these guidelines are intended to serve as a management decision-making tool in planning for and evaluating activities or transactions that could have a significant impact on the level of cash on hand.

Categories of Cash Reserves

The Cash Reserve Policy recommends the creation of four separate reserve funds:

- Operation & Maintenance Reserve
- Repair & Replacement Reserve
- Debt Service Reserve
- Rate Stabilization Reserve

Summary of Recommended Reserve Levels

Reserve Category	Recommended Reserve
<i>Operation & Maintenance Reserve</i>	Start at 30 days of expenditures and build to 180 days
<i>Repair & Replacement Reserve</i>	Start at 10% Annual Depreciation and build to 25 %
<i>Debt Service Reserve</i>	20% for Debt Service obligation that do not have their own reserve
<i>Rate Stabilization Reserve</i>	As determined by the Board and management

Each reserve is summarized below with an explanation as to the methodology that was used to size each reserve.

Operation & Maintenance Reserve

Purpose

The purpose of the Operation & Maintenance Reserve is to provide greater stability in annual operations even under unforeseen and changing circumstances as relates to both revenues and expenses. Utilities such as PV Water are subject to a broad array of risks, which may vary from small, temporary disruptions of business to substantial events. The intent of the Cash Reserve Policy is to set an overall reserve level that is reasonable, defensible and consistent with the aggregate risk profile that PV Water faces in effectively managing water supplies in the Pajaro Valley.

Methodology

Many water utilities, which generally operate on a monthly billing cycle, maintain operating reserves at a level of 60 to 180 days of operating expenses. Typically, it is utilities in the most stable operating environments that are able to manage with reserves on the smaller end of this range, while many agencies with significant annual volatility in revenues or expenditures or those undergoing significant expansion have substantially larger operating reserves.

Operation & Maintenance Reserve Policy

PV Water will maintain an Operation & Maintenance Reserve equal to 30 days of operating expenses and build to 180 days over a 5-year period.
See Exhibit A.

Repair & Replacement Reserve

Purpose

PV Water's BMP is made up of projects that will increase water supply to the Pajaro Valley and significantly expand PV Water's existing infrastructure. The purpose of the Repair & Replacement Reserve is to fund the unplanned repair or replacement of capital assets and to allow PV Water to absorb fluctuations in the capital plan without an immediate rate impact to customers.

Methodology

Given the significant capital improvements in which the Agency has invested over the past several years and the sizeable capital plans associated with implementation of the BMP, the creation of a Repair & Replacement Reserve to ensure the availability of funds to respond to unexpected needs is prudent.

Repair and Replacement Reserve Policy

PV Water will maintain a 10% Annual Depreciation reserve and increase to 25% over a 5-year period.
See Exhibit A.

Debt Service Reserve

Purpose

The purpose of the Debt Service Reserve is to provide PV Water with funds dedicated to paying the Agency's debt service obligations in the event of a significant, unexpected decrease in operating revenue during which operating funds may be insufficient to meet such obligations.

Methodology

Typical municipal bond covenants require the establishment of a debt service reserve fund in an amount equal to maximum or average annual debt service on the bonds. Such a requirement exists in connection with the Agency's Department of Water Resources promissory note. It would be prudent for PV Water to also set aside reserves in connection with its other debt as these loans are significant.

Debt Service Reserve Policy

PV Water will maintain a debt service reserve to be funded at level equal to 20% for Debt Service obligation that do not have their own reserve.

See Exhibit A.

Rate Stabilization Fund

Purpose

The Rate Stabilization Fund is established to provide short-term rate stability in case of an unexpected drop in revenue or increase in expenses. Among other things, the rate stabilization reserve affords PV Water with added flexibility in meeting its financial covenants to bondholders in the event of a financial shock to the Agency resulting from disaster or unforeseen financial circumstances.

Methodology

Unlike other reserves, the rate stabilization reserve is typically not a percentage or ratio, but rather a fixed amount. The funding of such a reserve is highly dependent upon the expected variability in PV Water's revenue stream, budgeted expenditures, political matters, legal matters and the level of total annual debt service, among other factors.

Rate Stabilization Fund Policy

PV Water will maintain a rate stabilization fund reserve as determined by management and the board. See Exhibit A.

Annual Review Process

PV Water plans to review and evaluate the reserve funding levels annually. Since reserve targets are based on certain estimates, assumptions, and risk probabilities, the Cash Reserve Policy will be revisited more frequently if there is a change in PV Water's operations, capital program, or debt service obligations that would warrant review of these policies.