Vail's Grove Cooperative, Inc.

Five Vail Boulevard • Peach Lake Brewster, NY 10509 (914) 669-5100 • Fax: (914) 669-5064 E-mail: VailsGroveCoop@gmail.com

May 30, 2013

Ms. Anne Bittner, M.S.P.H. Sr. Public Health Sanitarian Putnam County Health Department One Geneva Road Brewster, New York 10509

RE: Vail's Grove Cooperative Federal Public Water Supply Identification No. 3902654 Annual Water Quality Report for Year 2012

Dear Ms. Bittner:

Enclosed is a copy of Vail's Grove Cooperative's Annual (2012) Water Quality Report.

As always, if you have any questions, feel free to call this office.

Sincerely,

For The Public Health Committee of the Board of Directors

Cindy R. Battreall Assistant Secretary Board of Directors

Cc: New York State Department of Health – Commissioner Att: Director, Bureau of Public Water Supply Protection Flanigan Square, 547 River Street – Room 400 Troy, New York 12180-2216

Northeast Laboratories Incorporated 129 Mill Street Berlin, CT. 06037-9990

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VAIL'S GROVE COOPERATIVE, INC.

Five Vail Boulevard Brewster, New York 10509 PHONE 914-669-5100 FAX 914-669-5064

TO:

All Shareholders/Residents Vail's Grove Cooperative, Inc.

FROM:

The Public Health Committee of the Board of Directors

Vail's Grove Cooperative, Inc.

RE:

Annual Water Quality Report (AWOR)

For Vail's Grove Cooperative For Calendar Year 2012

5 Vail Boulevard Brewster, NY 10509

(Federal Public Water Supply Identification Number 3903654)

DATE:

May 28, 2013

To comply with State regulations, Vail's Grove Cooperative annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. We test your drinking water in accordance with the requirements of New York State for numerous contaminants including, total coliform, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds (VOC's), total trihalomethanes, synthetic organic compounds (SOC's), and purgeable organic compounds (POC's). Last year, we conducted tests for contaminants, of which none was a level higher than the State allows.

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants, inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

This Annual Water Quality Report (AWQR) is to keep you informed about the water and services delivered to you during calendar year 2012. The Cooperative's goal is to provide a safe and dependable supply of drinking water. Our water source is from three subterranean bedrock wells (each at an approximate depth of 300 feet) located near the pump house at the North end of Vail's Lake Shore Drive. The water is pumped from the wells into two (2) 20,000-gallon storage (40,000 gallons total) tanks after chlorination, and then pumped to the homes and Pavilion of the Vail's Grove community at between 60 and 80 pounds per square inch. NY State certifies operators who serve on our Public

Health Committee who test chlorine levels daily. During 2012 the wells produced and delivered 7,612,000 gallons of potable water. In 2003, The Department of Health completed a Source Water Assessment Summary and Final report regarding the three wells at Vail's Grove. The full report is available at the Vail's Grove Office should you wish to read it.

Some time in the near future, we expect to replace our water storage tanks and associated water delivery equipment at a new Pump House. Approvals for this work are underway by our Engineers.

For more information or to discuss any drinking water issues, feel free to call us at (914) 669-5100, or you may call the Putnam County Department of Health located at One Geneva Road, Brewster, NY 10509 at (845) 803-1370. Jack Waltzer, Vail's Grove's "Principal Operator in Charge" will also answer any questions on drinking water quality. He may be reached (days) at (845) 669-8085. K. Heuschkel (Operator) may be reached at (845) 669-5976. P. McGuinness (Operator) may be reached at (845) 669-5548. J. Moore may be reached at (845) 803-2786/(914) 669-9606. Any issues concerning drinking water quality may also be discussed at our regular monthly board meetings on the 3rd Tuesday of each month.

In the light of recent terrorist activities, in the event of suspected vandalism or sabotage at the pump house: contact Jack Waltzer, or the State Police at (845) 279-6161 or the Putnam County Sheriff's Office at (845) 225-4300.

Vail's Grove Cooperative, Inc. routinely monitors (by a laboratory certified by New York State) for various substances and possible contaminants in our drinking water, according to Federal and State laws and on a schedule as determined by the State of New York. Attached tables show results of some of our monitoring from several previous years and list **only detected contaminants**. On the New York State schedule, our water is tested for inorganic contaminants, nitrate, lead and copper, volatile organic contaminants, synthetic organic contaminants, and total trihalomethanes. Our water is tested for coliform bacteria once per month. A coliform violation occurs when a total coliform positive sample is positive for E coli and a repeat total coliform sample is positive, or when a total coliform positive sample is negative for E coli, but a repeat coliform sample is positive for total coliforms and E coli. The MCL for coliform is 0 per 100 ml.

During the year, there were no positive coliform bacteria detected. We also monitored for the following Purgeable Organic Compounds in Drinking Water which were all **below detectable limits:**

Dichlorodifluoromethane, Chloromethane, Vinyl chloride, Bromomethane, Chloroethane, Trichlorofluoromethane, 1,1-Dichloroethene, Methylene Chloride, Trans-1,2-Dichloroethene, 1,1-Dichloroethane, Cis-1,2-Dichloroethene, 2,2-Dichloropropane, Bromochloromethane, 1,1,1-Trichloroethane, 1,1-Dichloropropene, 1,2-Dichloroethane, Carbon Tetrachloride, Benzene, Trichloroethene, 1,2-Dichloropropane,

Dibromomethane, Cis-1,3-Dichloropropene, Toluene, Trans-1,3-Dichloropropene, 1,1,2-Trichloroethane, 1,3-Dichloropropane, Chlorobenzene, 1,1,1,2-Tetrachloroethane, Ethyl Benzene, m,p-Xylene, Styrene, o-Xylene, 1,1,2,2-Tetrachloroethane, Isopropyl Benzene, 1,2,3-Trichloropropane, Bromo Benzene, n-Propyl Benzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,3,5-

Trimethyl Benzene, Tert-Butyl Benzene, 1,2,4-Trimethyl Benzene, Sec-Butyl Benzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, p-Isopropyltoluene, 1,2-Dichlorobenzene, n-Butyl Benzene, 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene, 1,2,3-Trichlorobenzene, 1,2 Dibromo-3-chloropropane, cis-1,2-Dichloroethene, Dibromoethane, Methyl Ethyl Ketone, Tetrachloroethene, Total Xylenes, and Methyl tert-Butyl Ether (MTBE), 1,2-Dibromo-3-chloropropane, 1,2-Dichlorobenzene, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Total Trihalomethane.

The following Haloacetic Acids were not detected: Dichloracetic Acid, Monobromoacetic Acid, Monochloracetic Acid, Trichhloriacetic Acid.

In 2011, we also monitored for the following Synthetic Organic Compounds (SOC's) which were all **ND** (non-detectable):

1,2-Dibromoethane (EDB), Glyphosate, Aldicarb, Aldicarb sulfoxide, Aldicarb sulfone, Carbaryl, Carbofuran, 3-Hydroxycarbofuran, Methomyl, Oxamyl(Vydate), Endothall, Diquat, Alachlor, Aldrin, Atrazine, Benzo(a)pyrene, Butachlor, Di(2-ethylhexyl)adipatem Di(2-ethylhexy)phthalate, Dieldrin, Endrin, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane (gamma-BHC), Metolachlor(Dual), Methoxychlor, Metribuzin(Sencor), Propachlor, Simazine, Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260, Chlordane, Toxaphene, 2, 4, 5-TP(Silvex), 2, 4-D, Dalapon, Dicamba, Dinoseb, Pentachlorophenol, Picloram.

WE ARE PLEASED TO REPORT THAT VAIL'S GROVE DRINKING WATER CONTINUES TO MEET ALL FEDERAL AND STATE REQUIREMENTS. Last year your tap water met all State drinking water health standards. We are proud to report that in 2012, our system did not violate a maximum contaminant level (MCL).

Water Conservation

Because of the recent necessity for water conservation, the Board of Directors has approved a rule applicable when the state or either county has imposed a water emergency, water watch, or any other drought condition calling for water conservation. This rule mandates that Vail's Grove residents:

- -Will not wash cars
- -Will not water their landscape with hoses or sprinklers
- -Will not wash down driveways or roadways

Failure to comply with the above will result in an Improper Use Fee by the Board for each occurrence.

We all recognize the need to conserve water during times of drought. It is just as important to use water wisely when the supply is plentiful. Some common sense measures to conserve water include:

-Shut faucets off tightly. A small drip can waste 25 gallons per day.

- -Check all toilets for leakage. A bad toilet leak can waste as much as 200 gallons a day.
- -Don't run the faucet to get a cold drink. Place a container of water in the refrigerator.
- -Don't run the faucet while shaving or brushing your teeth.
- -Take shorter showers and half-full baths. Install low flow showerheads and faucets.
- -Run washing machine and dishwasher only when full. Don't wash dishes under a running faucet.
- -Don't cut the lawn too short, longer grass saves water.
- -Mulch around trees and plants to help retain moisture.

Health Considerations

There are some people who may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about their drinking water from their health care providers. EPA/CDC guidelines on the proper means to lessen the risk of infection by Cryptosporidium Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800) 426-4791.

About Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Don't use hot water for drinking purposes. Additional information is available from Safe Drinking Water Hotline (800) 426-4791.

Definitions:

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Variances and Exemptions: State permission not to meet an MCL or treatment technique under certain conditions. In 2001 Vail's Grove operated under a waiver from sampling synthetic

organic compounds (SOC's). In 2002, SOC's were tested. SOC testing was done again in the year 2005 and 2011. In 2008, Vail's Grove operated under a waiver from sampling synthetic organic compounds (SOC's).

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/l): Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion – ppt).

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water.

90th **Percentile Value:** The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

NDL: No determined limit.

n/d: Not detected in routine laboratory analysis.

N/A: Not applicable.

LT or <: Less than GT or >: Greater than

BDL: Below detectable limits.

cc: Commissioner, New York State Department of Health Attn: Director, Bureau of Public Water Supply Protection Flanigan Square, 547 River Street, Room 400 Troy, New York 12180-2216

Ms. Anne Bittner
Putnam County Health Department
One Geneva Road
Brewster, New York 10509

Northeast Laboratories of Danbury 129 Mill Street Berlin, CT 06037-9990

9	ation No	ON.	0 Z.	No	T
ported for 2016,)	Discharge from petroleum refineries; fire retardants; ceramics; electronics, solder. Some people who drink water containing Antimony well in excess of the MCL cholesterol and decreases in blood	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics and production wastes. Some McDover many years containing arsenic in excess of the problems with their circulatory system, and may have an drinking water arsenic standard of 10 parts ner billion, and may have an drinking water arsenic standard of 10 parts ner billion.	the health effect until 2006. EPA continues to research know to cause cancer in humans at high concentrations and circulatory problems. Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. Some people who many years could experience an increase in their blood pressure.	Runoff from fertilizer, leaching from septic tanks, sewage crosion of natural deposits. Infants below the age of 6 months who drink water containing nitrate in excess of the MCL could become seriously iil and, if untreated, may die. Symptons include shortness of breath and blue-baby	Discharge from run-off & septic systems. High calcium intake could result in skeletal problems and kidney or gallstones.
Contaminant Date Unit Table 1 – Detected Contaminants (Reported for 2016,) MCLG or Detected Range Information Standard Level	als [5/28//] [0.003 [.006 mg/]	Arsenic 6/1/14 mg/l 0.003 0.010 <0.0031	Barium 5/27/10 mg/l 0.002 2.0 mg/l 0.073.	4.3	

	No	OZ.	% %	No	SZ	o _Z	
	Discharge from metal refineries and coil-burning factories; discharge from electrical, aerospace, and containing beryllium well in excess of the MCL over many years could develop intestinal lesions.	waste batteries and paints. Some people who drink many years could experience kidney damage.	natural deposits. Some people who use water containing chromium well in excess of the MCL over Discharge from excess allergic dermatitis.	plastic and fertilizer factories. Some people who drink water containing cyanide well in excess of the damage or problems with their thyroid. Erosion of natural denosite.	promotes strong teeth; discharge from fertilizer and aluminum factories. Some people who drink water years could get bone disease, including pain and teeth.		more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
р. 1 в је	0.001	Chromium \$ /27/19 mg/l 0.001 [0.1 mg/l <0.00hg/l]	Cyanide 5/28/10 mg/l 0.01 0.2 mg/l <0.01 mg/l	Fluoride 5/27/10 [mg/l] 0.10 [2.2 mg/l] <0.10 mg/l		No Limit	Note #1 (Table 1) Odor, pH, solids, color, turbidity, alkalinity and hardness were all tested and were within acceptable

	0N 0N 0N	No.	OZ.	
Information Erosion of natural deposits; discharge from refine	land. Some people who drink water containing mercury well in excess of the MCL over many years could experience kidney damage. Discharge from petroleum and metal refineries, erosion of natural deposits, discharge.	people who drink water containing selenium in excess of the MCL over many years could experience hair or problems with their circulation. Naturally occurring. Discharge from photographic electronic products, in manufacturing of	soldering. Some people who drink water containing silver in excess of the MCL over many years could experience argyria or argyrosis, a permanent bluemembranes. Naturally occurring. High concentrations of sulfate in drinking water have three effects: (1) water containing appreciable amounts of sulfate tends to form hard	cause taste effects, and (3) sulfates can cause laxative effects with excessive intake. The laxative effect of sulfates is usually noted in transient users of a water sulfate levels in drinking water have no adverse greater than 500 mg/l but typically near 750 mg/l.
Range Information Erosion of na	land. Som mercury w could expe Discharge	people who of the MCI fingernail I problems w Naturally o and radiogr electronic n	soldering. Silver in exceptions of experience gray discolo membranes. Naturally oc drinking wat appreciable grayes in both scales in both scales in both states.	cause taste effects with sulfates is us supply becausulfate levels response. Di greater than
(2010) Detected Level Rai	(40.002mg/) [25.0mg/l	0.014mg/l
Table 1 MCLG or Standard	0.05 mg/l	1/6w1.0	250.0 mg/l	5.0mg/l
MDL 0.0002	0.002	0.005	3.0	0.002
ant Date Unit 5/28/10 mg/1	5/27/10 mg/l	97,27/10 mg/1	5/27/10 mg/l	5/27/10 mg/1
Contaminant	Nickel Selenium	Silver	Sulfate	Zinc

	Violation		O Z	No	No No	
ת		chloride is the level above which the taste of water may become objectionable. In addition, to the adverse taste effects, high chloride concentration domestic plumbing and water heaters. Elevated the presence of sodium in drinking water.	beaching from ore processing sites; discharge from electronics, glass and drug factories. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines or liver.	Corrosions of household plumbing systems, erosion of natural deposits. Infants and children who drink water containing lead in excess of the action level development. Children could show slight deficits in attention span and learning abilities. Adults who	kidney problems or high blood pressure. (See note Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives. drink water containing copper in excess of the action level over a relatively short and excess of the action	experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Diseaseshould consult their personal doctor, (see note.)
Conteminant Table 1	Chloride 5/27//1]qmg/l 3.0 MCLG or Detected Level Range	Thallium \$\lambda 727/16 mg/l 0.001 0.002 mg/l < 0.004/1	Lead See note 2/25/12 mg/l 0.001 0.015 mg/l 0.024 mg/l			Note 2 - Table 1 -Results for lead & copper are reported at the 90th percentile.

	Vlolation	o Z	0 Z		
		1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a are minimized at this level. Many multivitamins may contain 3000 or 4000 ug/l of iron ner cancel.	Naturally occurring, indicative of landfill contamination. The Food and Nutrition Board of the safe and adequate daily dietary intake of manganeses people's diets lead them to consume even higher amounts of many	high amounts of vegetables or are vegetarian. The infant population is of greatest concern. It would be infant formula since it already contains iron and color in laundered goods and impairs the taste of Ica, color in laundered goods and impairs the taste of Ica, coffee, and other beverages. Concentrations may plumbing fixtures. As with iron, manganese may form a coating on distribution mine.	slough off, causing brown blotches on laundered clothing or black particles in the water,
Table 1	Date Unit MDL	5/27/1 Dup/	<u> </u>	for iron plus manganese equals 0.5 may by approved by the State.	
	Contaminant Iron	Manganese		*Combined MCL.limits mg/l. Higher levels	

uninant Date Unit MCL,TT or MCLG or Detected Contaminants Contaminants Detected +/- Information Viol- Indigical Information Standard Level Sigm Sigm Viol- ation	Notes pCi/L [50 pCi/L 4.7 pCi/L 1.5]	Note 2 pCi/L 1.32 1.32	Note 2 PCi/L 20 pCi/L 3.54 0.87 Alpha radiation also applies to applies to both 20 pCi/L 0.43 pCi/L 0.83	No No No No No No No No	(Note 2): Millirems per year (MREM/yr)-measure of radiation absorbed by the body. Samples were taken 3/06,5/01,7/08 and 11/06, 2008. (Note 3): If beta particles are detected at or below 50 pCi/L, the detected level is reported in pCi/L in order to provide consumers with a standard. The State considers 50/pCi/L to be the level of concern for beta particles.
Contaminant Radiological Contaminants in	groundwater Gross Beta	Gross Alpha	Uranium Radium 226/228	(Note 1): Samm	(Note 2): Millin (Note 3): If bets standard, The

Table 2 Poc's Detected in 2012	or Detected Ran- Information cd Level ge	The source is a by-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when Source water contains large amounts of organic maters.	50 ug/l 0.75 ug/l Same as above	S0 ug/l 1.5 ug/l Same as al-z	50 ug/l 2.3 ug/l Same co. 1	S0 ug/l	NOTES	
POC's	Organic Date Unit MDL MCLG or Compounds Chloroform	1 (8/1)	Bromoform 5/24 [ug/1] 50 ug/1	Bromo Dichlorometh [5/24] [ug/l] [50 ug/l]	(5/24 ug/l 50			NOTE 1: The MCL for Total Trihalomethanes (TTHM) 1: 100

QA/QC Sorrogates.** Small percentages of these PQC's were also detected (i.e. 1,2 dichlorobenzene & Bromofluorobenzene). halomethanes (TTHM) is 100.0 ug/l.

Table 3

		le l		5 6 <u>5</u>)	<u></u>	-2
		HAAS's in our drinking water are a byproduct of the	contamination. The MCL for HAAS is the sum of monochlorascetic	acetic acid, and dibromoacetic acid, bromo- is 0.060 man T	MCLGs but there is no colicative MCLG for this group (40 CFR '41.53). The individual	trichloroacetic acid, NO MDL exist for For	
		e a bypro	o preven f monoc	oacetic _a id. The	have in MCLG	Vicual N 3 rag/le	
	į	water ar	essary to he sum o	trichlor acetic ac	ne HAAg olicative The inda	id Brd 0	Ω
		drinking	AAS is t	stre acid dibromo	wo or the sis no α 41.53).	acetic ac id. No	ogate
~		s in our	contamination. The MCL for H.	id, and	but ther O CFR *	dichlore acetic ac	Surr
201		HAA5'	Contami The MC	acetic actis actis active acti	MCLGs but there is no colicative MCLG for this group (40 CFR '41.53). The individual	zero for trichloro	QA/QC Surrogates
HALOACETIC ACIDS (HAA5's) 2012	`						9
S (HZ		3/1	1/5		1/1		1
ACIL	Detected	1.0 ug/l 1.4 ug/l	1.0 ug/l 1.4 ug/l		1/bn g.7	"958"	
CETIC	De	1/1 1	/1 1.		7	6 =	
HALOA	MDI	0 no	0 ug			į	
			1				
-	~	 		ਜ.	-		
		50	12 ng,	/bn z			
	Acersch Aers	-	5/24/12 ug/ ₁	5/24/12 ug/.l	ates		
	Acia		10	/5	urrog BPA		
	STICH STICH	Dibromo Acetic	Acid	HAA5's	QA/QC Surrogates 2,3 DBPA		
ţ	AACT	Dij	Acid	HAZ	QA.		