# 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 24, 2012

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 2011

Dear Ms. Bittner:

Enclosed is a copy of Vail's Grove Cooperative's Annual (2011) 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 2011

5 Vail Boulevard Brewster, NY 10509

(Federal Public Water Supply Identification Number 3903654)

DATE:

May 24, 2012

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.

Unfortunately, our testing lab either misplaced a test sample, or lost the paperwork, and the nitrates/nitrites test had to be re-done in January of 2012. The test was normal but the county scheduled an administrative hearing for Vail's Grove.

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 2011. 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 2011 the wells produced and delivered 8,391,000 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.

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) 669-5548. 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 3<sup>rd</sup> 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 2011, 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.

**90<sup>th</sup> Percentile Value:** The values reported for lead and copper represent the 90<sup>th</sup> 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 90<sup>th</sup> 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

<b>.</b>	Viol-	o <sub>Z</sub>	O Z		000	
	ed for 2010,) Information	Discharge from petroleum refineries; fire retardants; ceramics; electronics, solder. Some people who drink water containing Antimony well in excess of the MCL cholesterol and in experience increases in blood	Erosion of natural deposits; runoff from orchards; runoff people who drink water containing arsenic in excess of the problems with their circulatory system, and may have an increased risk of perting energy.	drinking water arsenic standard of 10 parts per billion that will not take effect until 2006. EPA continues to research the health effect of low levels of arsenic, which is a mineral is linked to other health effects such as skin damage and circulatory problems.  Discharge of drilling wastes, discharge from metal refineries.		Symptons include shortness of breath and blue-baby Symptons.  Discharge from run-off & septic systems. High calcium intake could result in skeletal problems and kidney or gallstones.
	Unit Table 1 – Detected Contaminants (Reported for 2010,)  MCLG or Detected Range Information  Level	omg/l 0.003 .006 mg/l <0.003/l	1.0 mg/l 0.003 0.010" <0.0031	mg/l 0.002 2.0 mg/l 0.073.	0.01 10.0 1.9 mg/l 1.0 <0.01 mg/l	mg/l 0.010 none 56.6 mg/l DJ sy
	Contaminant Date Inorganic	Chemicals Antimony [5/28/]	Arsenic 6/1/1	Barium 6727/10	Nitrate 5/27/10 mg/l	Calcium 5/27/10

	j	No (	ON.	N <sub>O</sub>	°Z	No	No No	
7	Discharge from metal refinerior	factories; discharge from electrical, aerospace, and defense industries. Some people who drink water many years could develop intestinal lesions.  Corrosion of galvanized pipes; erosion of many.	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 for	plastic and fertilizer factories. Some people who drink water containing cyanide well in excess of the damage or problems with their thyroid.	promotes strong teeth; discharge from fertilizer and aluminum factories. Some people who drink water years could get bone disease, including pain and teeth.		severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
	Beryllium   \$/27/19   MDL   MCL   MCL   MCL	Cadmium 5/27/10mg/1 0.001 0.005mg/1 <0.001mg/1	Chromium \$1/27/19 mg/! 0.001 0.001 0.1 mg/l <10.00mg/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		Limit	Note #1 (Table 1) Odor, pH, solids, color, turbidity, alkalinity and hardness were all tested and were within acceptable

œ	Violation	0N	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	No	No	
		Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from crop 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 from mines. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or problems with their circulation.	ring of ring and frontaining rears could nent blue-	s of sulfate in ter containing orm hard sulfates wase laxative of a water ed to high	ate levels 50 mg/l.
		Erosion of natural deposits; discharge from refineries and factories; nunoff from landfills; nunoff from crop 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 from mines. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess fithe MCL over many years could experience hair or problems with their circulation.	and radiographic processing, manufacturing of electronic products, jewelry making, plating and soldering. Some people who drink water containing experience argyria or argyrosis, a permanent bluemembranes.	drinking water have three effects: (1) water containing scales in boilers and heat exchangers, (2) sulfates cause taste effects, and (3) sulfates can cause laxative sulfates is usually noted in transient users of a water sulfate 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.
	tton	Erosion of natural deposits; dischand factories; runoff from landfilland. Some people who drink wa mercury well in excess of the MC could experience kidney damage.	Discharge from petroleum and erosion of natural deposits, disc Selenium is an essential nutrien people who drink water contain of the MCL over many years oc fingernail losses, numbness in for problems with their circulation.	raphic process products, jewe Some people of Cess of the MC argyria or arg oration of the 3.	ater have three amounts of su alers and heat effects, and (3) excessive inta sually noted in use people where in directions in drinking versions in drinking versions in drinking versions and the sum of the sum	S00 mg/l but t
		Erosion cand facto land. Sor mercury could exp	Discharge erosion of Selenium people who of the MC fingernail problems v	and radiograph of a soldering. S silver in exc experience a gray discolo membranes.	drinking we appreciable scales in bo cause taste effects with sulfates is u supply beca sulfate level reconstruction.	greater than
	ted Level Range	mg/1 02mg/1		1/1		3/1
	Detec		Z00.05	25.0mg/l		0.014mg/l
	Table 1 MCLG or Standard	0.05 mg/l	T/bwI.0]	250.0 mg/l		5.0mg/1
	MDI.	0.002	0.002	3.0		0.002
	Date   Unit	1 9 mg/l	] [/Bm]d:	mg/l	į	
		5/27/10 mg/l 6/3/10 mg/l	97,27/10 mg/l	1/12//1		5/27/10 mg/1
	Contaminant	Nickel Selenium	Silver	Sulfate		Zinc
					1_	

Violation	O'Z.	No	N.		ON.	
Information	Naturally occurring or indicative of road salt confamination. No health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition, to the adverse taste effects, high chloride concentration levels in the water contribute to the deterioration of	chloride concentrations may also be associated with the presence of sodium in drinking water.  Leaching from ore processing sites; discharge from who drink water.	MCL over many years could experience hair loss, changes in their blood, or problems with their loss, lidineys, intestines or liver.  Corrosions of household plumbing systems, erosion of natural denosity.	water containing lead in excess of the action level could experience delays in the physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who kidney problems or high blood pressure.	natural deposits, leaching from wood preservatives. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing conner in expection.	action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Contaminant Date Unit MDL MDL MCLG or Detected Level Range Standard 5/27//10mg/l 3.0 250.0 mp/l d. o. "	1/Sun 4. nugl	Thallium \$\/27/19 mg/l 0.001 0.002 mg/l < 0.002 mg/l	Lead \$/27/10 mg/l 0.001 [0.015 mg/l 0.001mg/l]	See Note 2  Copper		Note 2 - Table 1 -Results for lead & copper are reported at the 90th percentile.

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	Vlolation	No	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 laundered clothing and stains plumbing fixures with of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects contain 3000 or 4000 ug/l of iron per cabsule.	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 high.	infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and color in laundered goods and impairs the taste of tea, caffee, and other beverages. Concentrations may plumbing fixtures. As with iron, manganese may slough off, causing brown blotches on laundered color in laundered goods and impairs the taste of tea, caffee, and other beverages. Concentrations may plumbing fixtures. As with iron, manganese may slough off, causing brown blotches on laundered clothing or black particles in the water.
Table 1	MCLG or Detected Level Range  Standard  0.3 mg/l * 0.009mg/1		0.3 mg/l * 40.00 Zmg/1	manganese equals 0.5
	Contaminant Date Unit MDL INDL Iron [5/27/] 0mg/l 0.002	Manganese [5/27/]     0.002		*Combined MCL.limits for iron plus m mg/l. Higher levels may by approved

Confaminant Date Unit MCL, TT or MCLG or Detected Contaminants 2008  Radiological Standard Level Sigm an an an an an Event MCLG or Detected Contaminants 2008  Radiological Standard Level Sigm at Sigm an	Gross Beta: Carry over from 2004. The source is decay of are radioactive known as whoken as wholen as whol	Gross Alpha  Note 2 pCi/L  15 pCi/L  16 pCi/L  17 people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.  The source is erosion of natural deposits.		Note 1): S :	(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.
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Viol- ation	No	No	No No		
Organic Date Unit MDL MCLG or Detected Ran- Information  Compounds  Chloroform 5/09 ug/l   100 mold   100 mold		5/09 ug/l	)Ve,	<u> </u>	(Note) The MCL for Total Trihalomethanes (TTHM) is 100.0 ug/l.  QA/QC Sorrogates.** Small percentages of these POC's were also detected  ** 1.2 - Dial.

\*\* 1,2 - Dichlorobenzene, Bromofluorobenzene, Dibromofluoromethane, 1,2,-Dibromo-3 Chloropropane,

Table 3

<del>-</del>			-, - <u></u>
HAA5's in our drinking water are a byproduct of the	contamination.  The MCL for HAA5 is the sum of monochloroacetic acid, dichloroacetic acid, tricklosses	acetic acid, and dibromoacetic acid, bromosis 0.060 mg/L. Two of the HAA5 have individual MCLGs but there is no colicative MCLG for this	zero for dichlor acetic acid and 0.3 mg/L for trichloroacetic acid.
MDL Detected 1.0 ug/l 1.7 ug/l	1.0 ug/l 1.7 ug/l	5.84 ug/l	
Reetich Agig2/23/09; ug/L. Dibromo	Acid 2/23/09 ug/1	HAA5's 5/09/11 ug/.1	