Town of Arlington
Office of the Town Manager

Adam W. Chapdelaine
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (78l) 316-3019
E-mail: achapdelaine@town.arlington.ma.us

MEMORANDUM

DATE: September 25, 2015

TO: Board Members

SUBJECT: Appointment to Open Space Committee

This memo is to request the Board's approval of my appointment of John Pickle to the Open Space Committee with a term expiration date of 1/31/2019.

Adam Chapdelaine
Town Manager

John David Pickle
39 Venner Road, Arlington, MA 02476
picklejohnmr@gmail.com   781-266-6671 (cell) 781-646-0643 (fax)

a. Professional Preparation.

1981 B.A. Geology, Cum Laude, Franklin and Marshall College, Lancaster, PA. Thesis: *Statistical Analysis of Hydrogeological Parameters, Washington County, Maryland.*

1985 B.S. Meteorology, Summa Cum Laude, North Carolina State University, Raleigh, NC

1985 M.S. Geology, University of New Mexico, Albuquerque, NM. Thesis: *Dynamics of Sedimentation in the Mill Hole Drainage Basin, Mammoth Cave Region, Kentucky.*

1987 M.S. Meteorology, North Carolina State University, Thesis: *The Effect of Latitude on the Development of Tropical Cyclones.*

b. Appointments.

2007-present, Science and Math Teacher, Concord Academy, Concord, MA
• Teach Physics, Fundamentals of Earth Systems Science, Applied Earth Systems Science, Geology, Oceanography, Meteorology, Computer Modeling in Science, Applied Environmental Science: Sustainability Management, and Precalculus
• Sustainability coordinator for campus "greening" efforts
• Faculty advisor for inventing club, DEMONS (Dreamers, Engineers, Mechanics, and Overt Nerds)
• Summer Sabbatical 2015: Programming an iPhone app for use by the CDC to detect counterfeit medicinal drugs while in the field.

2009-2014, Consultant, University of New Hampshire, Durham, NH
• Support for NASA-funded PicturePost project (http://picturepost.unh.edu/)

2014-present, Advisor, NSF-funded Crowd and Cloud project promoting citizen science efforts through television programs and web-based information.

2010-2014, Consultant, UMASS-Amherst Digital Stem Initiative funded by NSF
• Develop research protocols and learning activities to use digital cameras in the science classroom (chemistry, biology, physics, environmental, and Earth sciences)

2012, Consultant, Concord Consortium, InquirySpace funded by NSF

2010, Teacher-in-Residence, Learning Games Network, Cambridge, MA

2009-10, Consultant, MIT Teacher Education Program, MIT, Cambrige, MA
• Weather support for developing cell phone and web-based weather forecasting game

2007-10, Consultant, Lawrence Hall of Science, University of California, Berkeley, Berkeley, CA
• Software development and writing guides and learning activities using software

2007-08, Consultant for TERC, Cambridge, MA
• Create web-based activities for teachers for Earth Exploration Toolkit website.

2006-07, Curriculum Developer for Consulting Services for Education, Newton, MA
• Create web-based interactives for Discovery Channel.

2006-07, Education Development Consultant, Arlington, MA
• Create computer-based interactives for museums, including International Spy Museum, Washington, D.C., and Museum of Science, Boston, MA
• Create computer-based interactives, website development, and proposal writing for science centers and education centers.

2001-06, Program Manager, Global Systems Science, Museum of Science, Boston
• Principal Invesitgator for $2.5M NASA-funded "Measuring Vegetation Health" which created technologies and learning activities to monitor environmental health using plants.
• Content Expert for NSF-funded "Weather Prediction" exhibit and programs.
• Co-developer of "Sensing Cape Cod" program to create learning activities for monitoring ecosystem response to climate change at the Cape Cod National Seashore.
• Create curriculum, teacher guides, and software activities for the Global Systems Science.

1991-2001, Staff Scientist, Atmospheric and Environmental Research, Inc., Lexington, MA

• Created Education Development Unit to build collaborative education projects in curriculum support materials, teacher workshops, and informal science education; designed and completed research on the calibration and uses of the Defense Meteorological Satellite Program's microwave water vapor sounder (SSM/T-2).

1989-91, Advanced Weather Officer, U.S. Air Force, Phillips Lab, Hanscom AFB, MA
• Developed meteorological research using neural networks to forecast short-term movement and intensification of tropical cyclones using pattern recognition techniques.

1987-89, Typhoon Duty Officer, U.S. Air Force, Joint Typhoon Warning Center, Guam
• Forecast the movement & development of typhoons within four ocean basins; conducted research to aid forecasts; enhanced public affairs with local and military community.

1984-87, Weather Officer, U.S. Air Force, North Carolina State University, NC

c. Recent Publications.

Pickle, J. D., 2013, Software Manual for MovieTracker, embedded in MovieTracker software, 44 pp.

Schloss, A., A. Gould, J. S. Beaudry, and J. Pickle, 2012, *All About Digital Earth Watch*, http://dew.globalsystemsscience.org/about/allaboutdew.

Pickle, J. D., and A. Gould, 2010, Software Manual for AnalyzingDigitalImages, embedded in AnalyzingDigitalImages software, 48 pp.

Pickle, J.D., J., Kirtley, and A. Gould, 2009, Global Systems Science's *ABCs of Digital Earth Watch Software*, Lawrence Hall of Science, University of California, Berkeley, www.lhs.berkeley.edu, 44 pp.

2005 Lead author of Measuring Vegetation Health website: http://mvh.sr.unh.edu

2003 Revised New England Science Center Collaborative's *Climate Change Backpack*, 78 pp.

Pickle, J.D. and J. Kirtley, 2002, Global Systems Science's *Interpreting Satellite Images*, Lawrence Hall of Science, University of California, Berkeley, www.lhs.berkeley.edu, 54 pp.

Pickle, J.D., C. Sneider, R. Golden, J.M. Seltzwer, S. Velasquez, J. Snider, and A. Gould, 2002, Global Systems Science's *Ozone* (and accompanying Teacher Guide), Lawrence Hall of Science, University of California at Berkeley, www.lhs.berkeley.edu.

Sneider, C., R. Golden, K. Barrett, A. Gould, and J. Pickle, 2004, *A New World View*, Lawrence Hall of Science, University of California, Berkeley, www.lhs.berkeley.edu.

d. Software Developed (http://www.lawrencehallofscience.org/gss/rev/ip/index.html)

MovieTracker, 2013 (latest version), analyze color, position, shape, size, and angle of objects in digital movies frame by frame

AnalyzingDigitalImages, 2013 (latest revision), analyze color, position, shape, size, and angle of objects in digital images

DigitalImageBasics, 2013 (latest revision), interactively explore basic concepts of digital images

ColorBasics, 2010 (latest revision), interactively explore the color space of digital images (red, green, blue), printers (yellow, magenta, cyan), and digital art (hue, saturation, value)

ForestAnalysis, 2008 (latest revision), interactively explore four digital maps of the loss of old growth forest across the United States during the past three centuries

VegetationAnalysis, 2008 (latest revision), interactively explore three satellite images from the USGS EarthShots website (http://earthshots.usgs.gov/) to analyze the change in land cover

Software used in Museums

Ear Analysis software at the Museum of Science, Boston, MA, 2007, photograph, archive, analyze, and interact with digital images of museum-goers ears to explore natural variety of shapes and sizes

Pixel View software at the Museum of Science, Boston, MA, 2007, explore the effects of pixel size on what can be seen in digital images

Room Analysis software at the International Spy Museum, Washington, DC, 2007, see real time through digital images what has been misplaced in a room where participants have been looking for clues

e. Synergistic Activities.

Board Member, Blue Hills Observatory (BHO), Milton, MA 1999-2013.
Board Member, Museum Institutes for Teaching Science (MITS), 2003-2008
Member of Steering Committee for New England Science Center Collaborative, 2002-2006.
Vice Chair, Wastewater Advisory Committee to the Massachusetts Water Resource Authority (MWRA), 2000-2006.

f. Awards
National Association of Independent Schools Teacher of the Future award, 2010

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730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

September 21, 2015

John Pickle
39 Venner Road
Arlington, MA 02476

Re: Appointment: Open Space Committee

Dear Mr. Pickle:

As a matter of the standard appointment procedure, the Board of Selectmen requests that you attend a meeting of the Board of Selectmen at Town Hall, Selectmen's Chambers, 2nd Floor, 730 Massachusetts Avenue, on Monday, October 5th at 7:15 p.m.

It is a requirement of the Board of Selectmen that you be present at this meeting. Your presence will give the Board an opportunity to meet and discuss matters with you about the area of activity in which you will be involved.

Please contact this office to confirm the date and time with either Mary Ann or Fran at the above number.

Thank you.

Very truly yours,
BOARD OF SELECTMEN

Marie A. Krepelka
Board Administrator

MAK:fr