



Strategic Objectives for FY 2017-18

The Division of Environmental Assessment and Restoration (DEAR) created this staff development plan in support of the department's strategic goal to "empower employees to solve problems through innovation and efficiency." It fosters a professional development culture by providing relevant training, by enabling more effective communication, by measuring successes, and by improving processes. Providing staff development opportunities through specialized training is one way to reward employees while bringing up the overall skill level of our staff. Employee engagement surveys have also identified staff development as a key concern, and this plan incorporates employee feedback regarding what types of training would be most useful.

The DEAR staff development plan is different from—but incorporates and works side-by-side with—the approved training plan. Confusingly, the annual "approved training plan" is formally known as the department's "employee development plan." The approved training plan is put together as an administrative aid to identify training-related travel and costs for the Secretary's office (see Attachment A). It facilitates more efficient approval of travel authorization paperwork. The DEAR staff development plan encompasses many activities, some of which involve training-related travel or costs and are therefore listed on the approved training plan.

Plan Development

DEAR formalized its staff development plan during state fiscal year (FY) 2015-16, outlining specific plan elements, documenting training offerings, and identifying programs needing development. The FY 2015-16 plan evolved over time, culminating with a final version in March 2016. Two quarterly updates in March and June 2016 identified the division's status on implementing each plan element, as well as the next steps to undertake.

The division office and program administrators (management team) continued to implement the "next steps" identified in the 2015-16 and 2016-17 plans. The management team identified new topics for staff-led project workgroups, continued to support technical seminars, promoted staff attendance at supervisory skills and technical writing workshops, and evaluated progress towards meeting each of the plan elements. Details on successes and next steps for each element follows.

Summary of Plan Elements

"A" Elements—Easy starts and quick wins

1. Send staff to professional conferences (including out of state conferences).
2. Select staff to act as project workgroup leaders.
3. Bring promising staff to higher level meetings.
4. Enroll promising staff in department sponsored supervisory and leadership training classes.

"B" Elements—Intermediate activities

5. Identify high quality career development seminars.
6. Develop an in-house technical seminar series.

"C" Elements—Programs needing development

7. Identify key technical skills that will be lost when senior staff leave and pair those staff with promising junior staff for training.
8. Recruit and overlap incumbent and incoming staff for six months.



Status of Plan Elements

1. Send staff to professional conferences.

DESCRIPTION—Technical training is often available at pre-conference workshops or break-out sessions. Presenters at meetings often share state of the art analysis methods prior to publication in peer-reviewed journals. "Messy desk" thought process at conferences often produces unique ways of looking at what might appear to be unrelated concepts. Staff can present the department's work at meetings, which provide a good forum for public outreach and feedback.

STATUS—Complete, but ongoing. DEAR managers identified relevant professional conferences, soliciting staff input to identify events where employee interest intersected with division needs. The management team developed a reporting and tracking mechanism that records how many staff attended each of the identified events, documents attendance at events that had not been previously identified on the plan, and—most importantly—evaluates the training and conferences attended by staff. This tool can then be used to help drive future planning for staff development through professional conferences, by documenting which offerings were most useful and relevant.

NEXT STEPS—Management team to continue populating the training and conference attendance spreadsheet; this is generally accomplished concurrently with end-of-quarter business plan reporting by the program administrators. Use the data collected on the 2017-18 spreadsheet to inform requests for the FY 2018-19 training plan.

2. Select staff to act as project workgroup leaders.

DESCRIPTION—Spotlight promising staff while addressing shortcomings of flat organizational structure by providing additional leadership opportunities through managing workgroups. Provide opportunity for staff to demonstrate, practice, and learn leadership skills while delivering solutions to problems challenging the division. Reduce burden on program administrators (PAs) and environmental administrators (EAs) who typically lead such groups. Include top down approval so supervisors and staff feel empowered to dedicate resources to tasks outside typical duties. Showcase the skills and potential of all the staff participating in the group.

STATUS—Complete, but ongoing. Workgroup kickoff begins with development of a scoping document and selection of a PA liaison. The workgroup leader, however, has responsibility for completing the workgroup's charge; presenting the deliverables; assuring revisions are made based on management team review; and preparing final reports and recommendations. The workgroups typically have a limited duration, so in addition to landing a product, many of the groups recommended follow-on subgroups or the creation of an ongoing team.

FY 2015-16 Workgroups:

- Employee Recognition
- Bioassessment
- Water Quality Trend Analysis
- Continuous Monitoring

FY 2016-17 Workgroups:

- TMDL Development Process Revamp
- Water Quality Trend Analysis Subgroup 1 (Example Framework Applications)
- Water Quality Trend Analysis Subgroup 2 (Power Analysis Workgroup)
- Continuous Monitoring Phase 2



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New workgroups to launch in FY 2017-18:

- Division-wide data management strategy

NEXT STEPS—Existing workgroups which have not yet established a deliverable schedule or a formal scoping document will do so. Workgroup products will be submitted to the DEAR management team for review, approval, and implementation. Individual workgroup status to be included in staff development plan quarterly update reports. Management team will regularly revisit and refine the list of DEAR priorities to establish the next wave of workgroup teams.

3. **Bring promising staff to higher level meetings.**

DESCRIPTION—Develop area expertise by exposing staff to new concepts through attending meetings. Allow PAs and EAs to bring junior staff up to speed on important key issues and to assign meeting-specific tasks in preparation for follow-up meetings. Expose junior staff to DEAR's technical and policy discussions. Provide an opportunity to understand collaborative decision-making.

STATUS—In progress. Some programs have implemented this element, but DEAR is not (yet) formally tracking this effort. The concept behind this plan element involves more than just bringing the technical expert or project lead to management briefings with the Director or Deputy Secretary. The idea is to enable and encourage busy managers and promising junior staff to find the time to establish a shadowing program.

NEXT STEPS—Management team to determine whether and how to track shadowing and meeting attendance, perhaps through asking staff to maintain an achievement or professional development log. Management team to clarify the intent and expectations when inviting staff to participate in division office level meetings—especially if it's not their subject matter focus. Invited staff should be shadowing, learning, and contributing to the meeting while getting a larger perspective on how management and leadership decisions are made in response to technical inputs and answers.

4. **Enroll promising staff in department sponsored supervisory and leadership training classes.**

DESCRIPTION—This element reflects DEAR's commitment to participating in department-sponsored supervisory and leadership training classes, such as the Leading, Engaging, Advancing, Promoting, Sustaining (LEAPS) training course; the Effectively Engaging DEP Stakeholders—NRLI Course; the Dale Carnegie Management Training course; and the Supervisor's Boot Camp (*From Supervisor to Leader: Road Map to Success*) course taught by the Florida Institute of Government.

STATUS—Complete, but ongoing. See Attachment B for the list of DEAR staff who were identified for leadership training, along with the dates they attended training. Having a continuously updated list of targeted staff proves helpful, as the department's supervisory skills course is sporadically offered with an unknown number of available seats. As an example, in the March 2017 course, DEAR was able to send four staff who had previously been wait-listed. And when a new course was unexpectedly scheduled for April 2017, DEAR was ready with a list of names and secured nine attendees.

NEXT STEPS—PAs to continue to identify promising staff, focusing on those who are new to supervisory roles with less than two years of supervisory experience; those expected to move into supervisory roles within the current or next fiscal year; non-supervisory staff who act as team leads by coordinating work assignments; and current supervisors who have not had the training or who could benefit from going to the workshop as a refresher.



5. Identify high quality career development seminars.

DESCRIPTION—This plan element includes both third-party or contractor training as well as in-house training, technical sessions, user groups, and courses. In-house training benefits the staff receiving the training, provides presentation practice to the providers, builds cross-program relationships among DEAR staff, and takes full advantage of the costs associated with conference and seminar travel (i.e., it implements the "train the trainer" approach). The management team pursues third-party training or contract training for those topics where DEAR lacks in-house expertise sufficient to teach a meaningful course, or where inexpensive "off the shelf" training is readily available. In addition, when contracting out technical work such as water quality modeling, contracts now routinely include a staff training component so that DEAR can build its internal expertise over time.

STATUS—Complete, but ongoing. The management team identified several courses to meet broad training needs across the division—public engagement and communication (via True Colors), writing (via participating in department-sponsored offerings and hiring Dr. Teague to repeat her DEAR-tailored writing course), and supervisory skills (via the department-sponsored offerings discussed above). In addition, staff responded to surveys with requests for training in the following areas:

- Facilitation training beyond just hosting successful meetings, learning how to recognize different types of audiences, deal with disruptive attendees, ensure all attendees have opportunities to actively participate, etc.
- Technical training in statistics, graphical information systems, and coding (such as R and Python).
- Advanced training in Microsoft Office applications.

NEXT STEPS—Communicate to staff the availability of online and instructor-led courses, along with instructions on how to sign-up for course offerings through Maestro, Computer Tutors, and Lynda.com. Track staff usage of the available training. Develop customizable templates for various sections and position levels to balance the needs of the division with individual employee's desires for advancement and training.

6. Develop an in-house technical seminar series.

DESCRIPTION—DEAR conducts a "second Tuesday" technical seminar series. Each month, a technical presentation showcases some of the outstanding work being done by DEAR staff. The seminar series provides training on sampling, data analysis, statistical analysis, using spreadsheets, and other similar topics. Some of these presentations will be the venue for in-house training sessions identified under plan element 5, above.

STATUS—Complete, but ongoing. The topics presented and scheduled to date are:

- Nov 2015—Ground water trend study—Rick Copeland
- Dec 2015—Bioassessment 101—Cheryl Swanson
- Jan 2016—Spotlight: Regional Operation Centers—Alicia Wilson
- Feb 2016—Determining priority waters for TMDL and restoration—Erin Rasnake
- Mar 2016—Algal blooms—Cheryl Swanson
- Apr 2016—Business plan demystified—Greg DeAngelo
- May 2016—Review of recent poster sessions (phytoplankton assemblage basis for setting a water quality target, and using microbial source tracers)—Ansel Bubel and Daisys Matthews
- Jun 2016—No presentation this month
- July 2016—Using the new SPA—Lisa Schwenning and Kyle Ferris
- Aug 2016—Water-CAT—Kate Muldoon



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- Sept 2016—No presentation this month (Hurricane Hermine)
- Oct 2016—DEAR style guide—Greg DeAngelo
- Nov 2016—Rulemaking 101—Eric Shaw and Kenny Hayman
- Dec 2016—Santa Fe resource focus area sampling plan and results—Brian Katz
- Jan 2017—Springs BMAPs and OSTDS remediation plans—Kevin Coyne
- Feb 2017—80th percentile of natural variability and other statistical tricks—Ken Weaver
- Mar 2017—Statistical analysis using R—Ansel Bubel and Aime West
- Apr 2017—New data layers for assessment status and springs—Janis Morrow
- May 2017—State waters classification—Daryll Joyner
- Jun 2017—Overview of DWRA funding programs—Joe Kahn
- July 2017—Finding fecal sources in 60 days—Anita Nash
- Aug 2017— Using MapDirect—Andy Woeber
- Sept 2017—No presentation this month (Hurricane Irma)
- Oct 2017—WAVES (WIN advanced view and extraction system)—Justin Nelson
- Nov 2017—DEAR business plan—Greg DeAngelo
- Dec 2017—Permitting fundamentals for non-permit writers—Daryll Joyner
- Jan 2018—DEP QA basics—Nia Wellendorf
- Feb 2018—Introduction to ArcGID Online—Janis Morrow
- Mar 2018—Statewide changes in Florida's lake, stream, and aquifer water quality: 2000-2015—Rick Copeland

NEXT STEPS—Continue to implement and refine the process to keep a variety of interesting topics going. Continue to schedule additional speakers and topics. Continue to document the seminars (e.g., through recording as webinars) and build the intranet-hosted training library.

7. Identify key technical skills that will be lost when senior staff leave and pair those staff with promising junior staff for training.

DESCRIPTION—Similar to mentoring but more focused and with the specific intent of maintaining program capacity during staff turnover.

STATUS—To be developed.

NEXT STEPS—One area to consider is the loss of general familiarity with wastewater permitting, stormwater, drinking water, underground injection control, and other Division of Water Resource Management programs as time goes on and staff with prior regulatory experience retire. Could potentially institute high level training and interaction between the water divisions.

8. Recruit and overlap incumbent and incoming staff for six months.

DESCRIPTION—Overlap allows for transfer of key technical skills, and reduces loss productivity or function following transition.

STATUS—Implementation steps to be developed, such as identifying required resources like rate.

NEXT STEPS—Evaluate the relevance of a six month timeframe, which is arbitrary. The goal should be to effectively transition staff through encouraging formal and informal overlapping of responsibilities for a sufficient time and as resources allow.



DEAR Staff Development Plan for FY 2017-18
Attachment A—Approved Training Plan for FY 2017-18

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Training or Certification	Vendor (if applicable)	Purpose?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Cost of Training and Associated Fees	Total Requested Event Cost
Aug 2017	Algal Taxonomy Workshop - Greenwater Labs Andy Chapman	No	Tallahassee, FL	EM; ESII	Biology (3)	Attending training	Greenwater Labs	Provide training on recent changes to green algae taxonomy and train new taxonomists on microscope identifications with a focus on HABs and small planktonic species.	No	No	\$ -	\$ 1,500	\$ 1,500
Fall 2017	Florida Association of Benthologists (FAB) Annual Conference	Yes	TBD (Florida)	ESII	Biology	Attending conference (not speaking)	FAB	Attendance enables DEAR staff to share updates on DEP bioassessment methods with macroinvertebrate experts and an audience of professionals who use DEP bioassessment tools. It provides DEAR staff with insights from other Florida professionals about the use of aquatic communities as indicators of water quality conditions and ecosystem function in Florida.	No	No	\$ 500	\$ 125	\$ 625
Fall 2017	Biocriteria/Q Meeting (Fall Meeting)	Yes	Tallahassee, FL	~ 30 from ROCs/Districts; and additional local staff from Tallahassee with no cost (EA; EC; ESIII; ESII)	All DEAR (30)	Attending training	In-house	This meeting will provide DEAR staff the opportunity to conduct quality assurance exercises that ensure consistent data collection across DEP Regional Operation Centers, and learn and practice new assessment techniques.	Yes - 319 Bioassessment	No	\$ 11,500	\$ -	\$ 11,500
Fall 2017	DEP QA Officer Training	Yes	TBD (Florida)	Up to 15 from DEAR; up to 45 from other Divisions (EA; EC; ESIII; ESII)	All DEAR (15)	Attending training	In-house	OUTREACH to DEP QA Officers. At this meeting, agency QA staff in the DEAR Aquatic Ecology and QA Section would provide training to QA Officers about QA concepts, data review, how to conduct audits, and their responsibilities as QA Officers. The meeting would be an opportunity for agency QA Officers to discuss any issues they have encountered, ask questions, and ensure consistency across the agency.	No	No	\$ 10,800	\$ -	\$ 10,800
Fall 2017 & Spring 2018	SAS Statistical Software Training	No	Online	EC	WQAP (2)	Attending training	SAS	This training is critical for the Assessment Section to develop broader staff capability to conduct the computerized components of the 303(d) assessment, which rely on SAS software.	No	No	\$ 9,000	\$ -	\$ 9,000
Fall 2017 & Spring 2018	Surface Water and Groundwater Sampling Training (Status and Trend Networks)	Yes	TBD (Florida)	21 Field Staff (EA; EC; ESIII; ESII)	WQAP (21)	Attending training	In-house	Training will allow new staff from Regional Operations Centers to receive training on DEP SOPs for surface water and ground water sampling in accordance with Status and Trend Monitoring program protocols. This training is focused on status and trend monitoring for new staff, which covers different topics and is geared for different staff than the biocriteria field staff training.	No	Yes	\$ 9,702	\$ -	\$ 9,702
Fall 2017 & Spring 2018	Florida Lake Management Society (FLMS) Local Chapter Meetings	No	TBD (Florida)	16 Field Staff (EA; EC; ESIII; ESII)	WQAP (16)	Attending Training	FLMS	Plant training.	No	Yes	\$ -	\$ 320	\$ 320
Fall or Winter 2017	Water Quality Analysis Simulation Program (WASP) Workshop	No	Tallahassee, FL	12 WQETP Staff (EC; ESIII)	WQETP (12)	Attending training	EPA	(Travel costs are for one EPA instructor to come to Tallahassee to train DEAR staff.) To more efficiently develop TMDLs, the Water Quality Evaluation and TMDL Program (WQETP) has established a long-term training plan designed to create in-house expertise in water quality modeling. The WASP model is part of the selected suite of standard modeling tools for TMDL development and analyses of restoration alternatives in Florida. Developing the in-house modeling expertise will allow the department to produce higher quality TMDLs and save resource for the State by reducing the contract costs.	No	No	\$ 1,000	\$ -	\$ 1,000

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Oct 25-27, 2017	Florida Society of Environmental Analysts (FSEA) Fall Meeting	Yes	Jupiter, FL	PA; PM; EC; ESII	Biology; SSS; Chemistry; WQSP	Attending conference (not speaking)	FSEA	Attendee will learn new concepts and/or applications of established concepts, substantial improvements of existing techniques, regulatory and QA/QC issues, and laboratory and field activities. (Cost estimate is for three attendees; costs for one additional attendee expected to be covered by FSEA as in past years.)	No	No	\$ 1,950	\$ 900	\$ 2,850
Nov 2017	Seven Hills Regional Users Group (SHRUG) Annual Workshop (GIS -- OTIS Approved 5/1/2017)	No	Tallahassee, FL	EC; ESIII	WQSP(1); OWS (4)	Attending conference (not speaking)	SHRUG	This local workshop enables DEAR staff to keep current with GIS industry perspectives and advancements. Enhanced GIS skills are essential to analyzing and depicting the geographic and other data necessary to implement DEAR's programs.	No	No	\$ -	\$ 475	\$ 475
Nov 23-25, 2017	GIS-Pro: URISA 55th annual conference (GIS -- OTIS Approved 5/1/2017)	Yes	Jacksonville, FL (Jacksonville Hyatt Regency)	EM; ESIII	WQETP (2); OWS (1)	Attending conference (not speaking)	URISA	The conference educational content celebrates exemplary applications of technology for emergency response, addressing, public health, transportation, economic development, land records, etc. Participants will also share best practices for GIS management and leadership, professional development, and certification. (National conference being held in Florida this year.)	No	No	\$ 1,173	\$ 1,725	\$ 2,898
Dec 2017	Florida Stormwater Association (FSA) 2017 Annual Winter Conference	Yes	Orlando, FL	EA; EC; ESIII	WQAP (2); WQRP (1)	Attending conference (not speaking)	FSA	Attendance will provide opportunity for staff to communicate with interested parties and stakeholders on recent updates and information on the current impaired waters assessment, the 303(d) methodology and implementation of numeric nutrient criteria. Additional benefits include an opportunity to learn and discuss water quality restoration projects and opportunities.	No	No	\$ 1,350	\$ 975	\$ 2,325
Jan 8-13, 2018	2018 Winter Conference on Plasma Spectrochemistry	Yes	Amelia Island, FL	EM	Chemistry	Attending conference (not speaking)	ICP Information Newsletter	This conference is the twelfth in a series of biennial meetings and will focus on plasma spectrochemistry for trace element, stable isotope, and elemental speciation analyses. It will bring together international scientists experienced in applications, instrumentation, and theory in an informal setting to examine recent progress in the field. Approximately 600 participants from 30 countries are expected to attend. With over 300 papers describing applications, fundamentals, and instrumental developments with plasma sources being presented in lecture and poster sessions by more than 200 authors and symposia organized and chaired by recognized experts, it is a unique opportunity for the laboratory to stay current in ICP-OES and ICP-MS analytical theory and techniques and thus be prepared to make the most informed and effective choices when developing new analyses and purchasing new equipment.	No	No	\$ 500	\$ 550	\$ 1,050
Feb 6-7, 2018	University of Florida (UF) Water Institute Symposium	Yes	Gainesville, FL	EM; ESIII	WQETP (2)	Attending conference (not speaking)	UF	Attendance will allow staff to learn about new scientific findings and innovations in watershed restoration, conservation and agricultural best management practices and to network with agency staff, consultants and researchers. Also a great opportunity for DEP staff to make presentations about our own work and achievements.	No	No	\$ 820	\$ 400	\$ 1,220

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Training or Certification	Vendor (if applicable)	Purpose?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Cost of Training and Associated Fees	Total Requested Event Cost
Feb 26 - Mar 1, 2018	2018 Pittsburg Conference and Exhibition (Pittcon)	Yes	Orlando, FL	EM; CS; ESIII	Chemistry (3)	Attending conference (not speaking)	Pittcon	The Chemistry Laboratory is currently evaluating new analytical instrumentation and techniques used to improve the efficiency, capability and sensitivity of analyses for environmental contaminants. The Pittsburgh Meeting offers a unique opportunity to explore, in one place, virtually everything the market has to offer and to meet with highly knowledgeable technical personnel from various companies and other laboratories. Our laboratory hopes to use this opportunity to stay abreast of developments in analytical technology and to make intelligent, informed purchasing decisions so we may better serve the current and future needs of the agency.	No	No	\$ 1,500	\$ 675	\$ 2,175
Spring 2018	Florida Association of Benthologists (FAB) Taxonomic Workshop	Yes	TBD (Florida)	ESIII; ESII	Biology (2)	Attending conference (not speaking)	FAB	Unlike the more general annual conference, this workshop focuses specifically on taxonomy, a critical component of DEAR's Bioassessment Program. Regular, consistent training ensures the credibility of DE P's taxonomists and the Bioassessment Program.	No	No	\$ 1,000	\$ 400	\$ 1,400
Spring 2018	Biocriteria/Q Meeting (Spring Meeting)	Yes	Tallahassee, FL	~ 30 from ROCs/Districts; and additional local staff from Tallahassee with no cost (EA; EC; ESIII; ESII)	All DEAR (30)	Attending training	In-house	This meeting will provide DEAR staff the opportunity to conduct quality assurance exercises that ensure consistent data collection across DEP Regional Operation Centers, and learn and practice new assessment techniques.	Yes - 319 Bioassessment	No	\$ 11,500	\$ -	\$ 11,500
Apr 22-25, 2018	2018 American Water Resources Association (AWRA) GIS & Water Resources Conference (GIS -- OTIS Approved 5/1/2017)	Yes	Orlando, FL	EC; EM; ESIII	WQRP (1); WQAP (1); OWS (2); WQETP (1)	Attending training	AWRA	2018 AWRA GIS & Water Resources conference: GIS and Water Resources X: Spatial Analysis of Watersheds: Ecological, Hydrological, and Societal Responses (National conference being held in Florida this year.)	No	No	\$ 3,180	\$ 3,250	\$ 6,430
May 2018	Florida Society of Environmental Analysts (FSEA) Spring Meeting	Yes	Clearwater, FL	PA; PM; EC; ESII	Biology; SSS; Chemistry; WQSP	Attending conference (not speaking)	FSEA	Attendee will learn new concepts and/or applications of established concepts, substantial improvements of existing techniques, regulatory and QA/QC issues, and laboratory and field activities. (Cost estimate is for three attendees; costs for one additional attendee expected to be covered by FSEA as in past years.)	No	No	\$ 1,950	\$ 900	\$ 2,850
Jun 2018	Florida Stormwater Association (FSA) 2018 Annual Summer Conference	Yes	Sanibel, FL	EM; EC; ESIII	WQETP (1); WQAP (1); WQRP (1)	Attending conference (not speaking)	FSA	Attendance will allow staff to interact with stormwater and urban runoff professionals while discussing stormwater best management practices, nutrient impacts on surface waters from municipal separate storm sewer systems (MS4), and TMDL development. Additional benefits include an opportunity to learn and discuss water quality restoration projects and opportunities.	No	No	\$ 1,800	\$ 1,300	\$ 3,100
Various (TBD)	Computer Tutors Training for Microsoft Applications	Yes	Tallahassee, FL	ESIII; ESII; ESI	WQAP (8)	Attending training	Computer Tutors	Increase Microsoft application skills. Attendance at Computer Tutor training classes is covered through department's agreements and contracts with the training vendor. This line item on the training plan represents travel for field staff in the ROCs to attend the courses (which are only held in Tallahassee).	No	No	\$ 1,600	\$ -	\$ 1,600

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Training or Certification	Vendor (if applicable)	Purpose?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Cost of Training and Associated Fees	Total Requested Event Cost
Various (TBD)	Aquarius Time-Series Training	Yes	Tallahassee, FL	4 Field Staff (EC; EM; ESIII; ESII)	WQAP (4)	Attending training	Aquarius	This is training on use of Aquarius Time-Series Software to manage and analyze continuous monitoring (CM) data. Training will allow WQAP staff to use it for management of CM data required for water quality assessment, most importantly dissolved oxygen criterion-related data, prior to WIN handling CM data. Training will allow OWS staff to analyze it for potential application to WIN and to assist DEAR in assuring interim CM work is compatible with WIN.	No	No	\$ 2,000	\$ -	\$ 2,000
Various (TBD)	Wilderness First Aid	No	Orlando, FL or Tallahassee, FL	26 Field Staff (EA; EC; ESIII; ESII)	WQAP (26)	Attending training	In-house	To know how to respond to emergencies in remote areas; field safety.	No	No	\$ 1,600	\$ 200	\$ 1,800
Various (TBD)	User Workflows for ArcGIS Online Organizations (GIS -- OTIS Approved 5/1/2017)	No	Online	ED	WQAP	Attending training	ESRI	Instructor led	No	No	\$ -	\$ 185	\$ 185
Various (TBD)	Communication Styles & Strategies	No	Online	ESIII	WQAP	Attending training	TrainUp.com	Better communication with team, supervisor, customers, and vendors.	No	No	\$ -	\$ 200	\$ 200
Various (TBD)	Intro to qPCR and Absolute Quantification	No	Online	ESI	Biology	Attending training	Applied Biosystems	This course included theory, application and data analysis using Applied Biosystems™ software. The cost includes the reagent kit needed and the trainee will be performing the experiments at DEP labs while taking the course online.	No	No	\$ -	\$ 300	\$ 300
Various (TBD)	CHROMacademy Webcast Training	No	Online	ESIII	Chemistry	Attending training	CHROMacademy	They offer a wide variety of specialized training webcasts on performing and troubleshooting analytical procedures such as HPLC, GC, mass spec, and solid phase extraction.	No	No	\$ -	\$ 400	\$ 400
Various (TBD)	Project Management Fundamentals	No	Online	EC; ESIII	OWS (3)	Attending training	Ed2Go	This basic training will provide OWS staff with opportunity to learn and improve project management skills to benefit OWS and DEAR projects. It has application to project management for WIN or other DEAR projects/contracts and to professional development of staff.	No	No	\$ -	\$ 450	\$ 450
Various (TBD)	Project Management Applications	No	Online	EC; ESIII	OWS (3)	Attending training	Ed2Go	This training expands on project management fundamentals and will enable OWS staff to apply the skills to implement DEAR projects more effectively and with more assured outcomes.	No	No	\$ -	\$ 450	\$ 450
Various (TBD)	Introduction to Statistics	No	Online	EC; ESIII	OWS (3)	Attending training	Ed2Go	OWS WIN/STORET Coordinators are expanding their skills in data analysis to meet DEAR needs. This introductory/refreshers course in statistics is on that path for skill/ professional development	No	No	\$ -	\$ 450	\$ 450

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Conference, Out of State Meeting or Outreach	Vendor (if applicable)	Purpose ? (OUTREACH: Describe Benefit to DEP)	Will the attendee be presenting?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Registration Cost and Associated Fees	Total Requested Event Cost
Aug 2017	Southern Nursery Association (SNA) Research Conference	Yes	Athens, GA	ESIII	WQETP	Attending conference (not speaking)	SNA	Participants are the top horticultural research and educational leaders from across the country. Hundreds of topics in thirteen categories are shared in presentations that run approximately seven minutes each. A printed agenda, available after June 1, and the conference format permits selection of research topics of special interest for those interested in attending. DEAR attendance will allow staff to better review agricultural best management practices and develop nitrogen inventories for springs where nurseries are a significant source.	No	No	No	\$ 350	\$ -	\$ 350
Aug 7-11, 2017	National Environmental Monitoring Conference and the NELAC Institute Forum on Laboratory Accreditation (Summer Meeting)	Yes	Washington, DC	PA; EC; EM; ESIII	2 total (Biology; SSS; Chemistry; WQSP)	Attending conference (not speaking)	NELAC Institute	"Effectively Communicating Scientific Information." Brings laboratories, regulatory agencies, data users, sampling firms, and many other organizations to discuss cutting-edge changes in environmental laboratory accreditation and future directions in policy that will have a national impact. Affords DEP a critical role in ongoing national efforts to develop sound science-based standards for environmental laboratories. Benefits Floridians by improving data quality and, in, turn, management decisions. DEP's QA Rule requires labs to follow NELAC standards, so it is important for QA Staff to understand those requirements.	No	No	No	\$ 3,832	\$ 990	\$ 4,822
Aug 28-30, 2017	International Conference on Water Microbiology and Novel Technologies	Yes	Philadelphia, PA	ESIII	Biology	Speaking at conference	ConferenceSeries	3 day conference discussing latest advances in lab techniques for water quality analysis, wastewater and drinking water treatment, and bioremediation.	Yes	No	No	\$ 1,000	\$ 1,000	\$ 2,000
Fall 2017	Phycological Society of America (PSA) 39th Annual Southeastern Phycological Colloquy	Yes	TBD (Alabama or Georgia)	EM; ESII	Biology (2)	Speaking at conference	PSA	This conference brings together students and professionals from all over the southeastern U.S. to share their research activities and discuss advances with algae. Keeping up to date with current taxonomic changes and having contacting with leaders in the field ensure the continued success of the department's algal identifications.	Yes	No	No	\$ 740	\$ 420	\$ 1,160
Fall 2017	Region 4 State Laboratory Meeting	Yes	Athens, GA	PA	Biology (1); Chemistry (1)	Attending conference (not speaking)	EPA	The information conveyed at this meeting is important to ensure that laboratory and quality assurance functions in EPA Region 4 state laboratories are aligned with existing and upcoming federal regulations and with current EPA policy directions.	No	No	No	\$ 4,000	\$ -	\$ 4,000
Fall 2017 or Spring 2018	EPA Water Quality Standards Academy	Yes	Decatur, GA	EM; EC	WQSP (1); WQETP (1)	Attending training	EPA	The 5-day course provides a comprehensive understanding of the water quality standards program under the CWA. Training will benefit the state by providing staff with a thorough understanding of National Recommended Water Quality Standards and the scientific and policy bases for developing defensible standards.	No	No	No	\$ 6,000	\$ -	\$ 6,000
Oct 19-20, 2017	12th International Conference on Environmental Toxicology	Yes	Atlanta, GA	ESI	Biology	Attending conference (not speaking)	ConferenceSeries	The conference serve as a venue for toxicologists of various disciplines (such as environmental, food and aquatic toxicology) to have open forums and collaborate with other scientists to gain further knowledge of toxicology. The conference also offers opportunities for participants to attend oral talks, video presentations, poster presentations and exhibitions. This is a great opportunity for our toxicology staff to gain and share knowledge which will directly benefit the FDEP toxicology laboratory.	No	No	No	\$ 620	\$ 999	\$ 1,619
Oct 23-26, 2017	Southeastern Water Pollution Biologists Association (SWPBA) Annual Meeting	Yes	Grand Rivers, KY	ESIII; ESII	Biology (1); WQSP (1)	Attending conference (not speaking)	SWPBA	This meeting is attended by state regulatory water pollution biologists and EPA Region 4 staff, and is held to exchange information on management, project results, tool and rule development, and the impact of pollutants on aquatic ecosystems. Florida is scheduled to host this conference in 2018, so some representation by Florida is appropriate in 2017.	No	No	No	\$ 2,800	\$ 220	\$ 3,020
Nov 11-17, 2017	9th US Symposium on Harmful Algal Bloom	Yes	Baltimore, MD	PA	Biology	Attending conference (not speaking)	9th US HAB	This national conference and training workshops is focused exclusively on the latest harmful algal bloom ecological research, monitoring practice and technologies, analytical procedures, and policy and management. Attendance will provide members of Florida's algal bloom response team an opportunity to learn and interact with others facing similar demands and issues regarding harmful algal blooms.	No	No	No	\$ 2,222	\$ 475	\$ 2,697
Nov 12-16, 2017	Society of Environmental Toxicology and Chemistry (SETAC) 38th Annual Meeting	Yes	Minneapolis, MN	PA; ESI	Biology	Speaking at conference	SETAC	Information on new biological, chemical and toxicological analytical methods, risk assessment, and science policy is made available for a wide variety of environmental issues (e.g. human health criteria, emerging contaminants, petroleum contamination). Affords DEP the opportunity to speak directly with these experts about their current research, regulatory policy goals and actions, or methods for environmental assessment and restoration is invaluable.	Yes	No	No	\$ 1,838	\$ 782	\$ 2,620

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Conference, Out of State Meeting or Outreach	Vendor (if applicable)	Purpose ? (OUTREACH: Describe Benefit to DEP)	Will the attendee be presenting?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Registration Cost and Associated Fees	Total Requested Event Cost
Nov 13-15, 2017	Eastern Analytical Symposium and Exhibition (EAS)	Yes	Princeton, NJ	EA	Chemistry	Attending conference (not speaking)	EAS	The Eastern Analytical Symposium and Exposition is the second largest conference and exposition for laboratory science in the U.S. dedicated to the needs of analytical chemists and those in the allied sciences. It offers high quality cutting-edge technical sessions and state-of-the-art short courses, workshops and seminars. Staying abreast of current advances in techniques and instrumentation is essential to ensuring that the Laboratory can make the correct choices when deciding which techniques to add/remove from its suite of analyses, and what new instrumentation to purchase.	No	No	No	\$ 1,500	\$ 225	\$ 1,725
Nov 17-19, 2017	Sunbelt Agriculture Expo	No	Moultrie, GA	ESIII	WQETP	Attending conference (not speaking)	Sunbelt Ag Expo	The event provides exposure to new techniques in the agriculture industry and information on best management practices and an opportunity for staff to network with agriculture professionals involved in innovative technologies. Costs are for registration for one day of the three day expo.	No	No	No	\$ -	\$ 10	\$ 10
Nov 22-25, 2017	2017 Geological Society of America (GSA) Annual Meeting	Yes	Seattle, WA	ESIII	WQETP	Speaking at conference	GSA	Present recent innovative springs studies and nitrogen source tools at the conference. (All travel costs covered by GSA.)	Yes	No	No	\$ -	\$ 50	\$ 50
Dec 11-15, 2017	American Geophysical Union (AGU) Fall Meeting	Yes	New Orleans, LA	ESIII	WQETP	Attending training	AGU	Attendance at this event will allow staff the opportunity to learn and discuss advances in water quality, watershed management, and science policy. Staff will gain exposure to new methods and tools for water quality assessment and modeling, which will help employees to better apply the most current science to TMDL development. Of particular interest are communication workshops to equip TMDL staff with tools to better communicate scientific results to the public and policy makers, important when explaining (for example) the uses and limitations of computer modeling in the Caloosahatchee and Loxahatchee basins.	No	No	No	\$ 1,200	\$ 500	\$ 1,700
Jan 2018	National Environmental Monitoring Conference and the NELAC Institute Forum on Laboratory Accreditation (Winter Meeting)	Yes	TBD (outside of state)	PA; EC; EM	2 total (Biology; SSS; Chemistry)	Attending conference (not speaking)	NELAC Institute	Affords DEP a critical role in ongoing national efforts to develop sound science-based standards for environmental laboratories. Benefits Floridians by improving data quality and, in, turn, management decisions.	No	No	No	\$ 3,832	\$ 990	\$ 4,822
Spring 2018	Water Laboratory Alliance (WLA) Meeting	Yes	TBD (outside of state)	EM	Chemistry	Attending conference (not speaking)	WLA	The Water Laboratory Alliance (WLA) helps state management to lead a coordinated laboratory response during water contamination incidents. The WLA focuses on contamination incidents that may require more support than a utility, state, or federal laboratory can provide alone. The WLA fits within existing Incident Command System structures and helps labs to better communicate and coordinate with laboratories and establish procedures for laboratory activities.	No	No	No	\$ 1,500	\$ -	\$ 1,500
Spring 2018	National Water Quality Monitoring Council's (NWQMC) 11th National Water Monitoring Conference	Yes	TBD (outside of state)	EA; EC; ESIII; ESII	OWS (1); WQAP (1) or Biology (1)	Attending conference (not speaking)	NWQMC	NWQMC provides a national forum for coordination of consistent and scientifically defensible methods and strategies to improve water quality monitoring, assessment and reporting. Attendance at this conference would allow DEAR to share with and learn from other professionals and organizations in these areas that are the backbone of our work. Attendees represent governmental organizations, tribes, volunteers, academia, watershed and environmental groups, and the private sector. The conference is a showcase for new findings on the quality of the nation's waters and for highlighting new innovations and cutting-edge tools in water-quality monitoring, assessment, and reporting. This conference occurs every two years, rotating around the country. The 2016 conference was held in Florida, at which it was noted that a presentation/representation of DEAR's Watershed Information Network (WIN) project under development at that time would be a useful to and timely for the 2018 conference.	No	No	No	\$ 4,168	\$ 1,200	\$ 5,368
Spring 2018	Society for Freshwater Science (SFS) Annual Meeting	Yes	TBD (outside of state)	EM	WQSP	Speaking at conference	SFS	This meeting promotes an understanding of freshwater ecosystems (rivers, streams, lakes, reservoirs, and estuaries) and ecosystems at the interface between aquatic and terrestrial habitats. Applied aspects of their science include habitat and water quality assessment, conservation, fisheries and invasive species management, integrated water resource management, and restoration. DEAR staff will benefit from a variety of biological assessment-related topics.	Yes	No	No	\$ 980	\$ 520	\$ 1,500
Spring 2018	EPA Listing and TMDL Training Workshop	Yes	Shepherdstown, WV	PA	WQAP (1); WQETP (1); WQRP (1)	Attending conference (not speaking)	ELI and EPA	Attendees at this meeting will allow for the exchange of information related to the 303(d) program and TMDL development nationwide. (Cost estimate is for two attendees; costs for one additional attendee expected to be covered by EPA as in past years.)	No	No	No	\$ 2,720	\$ -	\$ 2,720

Event Date(s)	Name of Event	Overnight Travel Required? (Yes / No)	Travel Location (city, state & hotel or venue name)	Staff Attending	Bureau/ Program	Conference, Out of State Meeting or Outreach	Vendor (if applicable)	Purpose ? (OUTREACH: Describe Benefit to DEP)	Will the attendee be presenting?	Is attendance required as a condition of a grant? If so, which grant?	Is attendance required by the attendees' position?	Estimated Cost of Travel	Estimated Registration Cost and Associated Fees	Total Requested Event Cost
Apr 2018	Florida Exotic Pest Plant Council (FLEPPC) Annual Symposium	Yes	TBD (Florida)	EC	WQSP	Speaking at conference	FLEPPC	Attendance at this meeting will allow Ashley to keep up-to-date on invasive plant research and determinations made by the FLEPPC group, which DEP uses in plant bioassessment methods.	Yes	No	No	\$ 500	\$ 255	\$ 755
May 2018	Water Institute at the University of North Carolina (UNC) Water Microbiology Conference 2018	Yes	Chapel Hill, NC	EM	Biology (1)	Speaking at conference	UNC	Presentations related to Microbial Source tracking techniques and efforts will be discussed. Attendance will allow staff to investigate water microbiology and molecular topics focusing on current concerns in recreational waters, emerging technologies and tools, with the goal of supporting development of a statewide fecal indicator TMDL and restoration toolbox.	Yes	No	No	\$ 1,200	\$ 585	\$ 1,785
June 2018	Florida Lake Management Society (FLMS) Annual Conference	Yes	TBD (Florida)	PA: EA; EC; ESIII	WQSP (2); WQRP (1); WQAP (2); WQETP (1)	Speaking at conference	FLMS	Attendance will allow staff to provide workshops and share updates about DEP water quality standards updates, biological assessment methods, and/or standard operating procedures (SOPs). Staff will also learn about current activities and innovations from water quality professionals from water management districts, local governments, universities, and the private sector. Learn and discuss water quality restoration projects and opportunities.	Yes	No	No	\$ 4,200	\$ 2,160	\$ 6,360
June 7-11, 2018	American Society for Microbiology (ASM) Microbe 2018	Yes	Atlanta, GA	EC; ESII	Biology (2)	Speaking at conference	ASM	Information on new microbial methods that can help with improving current laboratory methods or developing new laboratory methods in the development of microbial source tracking tools in support of TMDL program.	Yes	No	No	\$ 2,000	\$ 1,590	\$ 3,590



DEAR Staff Development Plan for FY 2017-18

Attachment B—Supervisory and Leadership Training Attendees and Plan

From Supervisor to Leader: Road Map to Success (or equivalent supervisory skills workshop) attendance:

- Greg DeAngelo, Peter Kaus, Jennifer Walters (prior to joining DEAR)
- Nia Wellendorf (November 2014)
- Ansel Bubel, Sara Davis, Chambray Dowdell, Kathryn Holland (*), Jessica Mostyn, Jackie Savage (July 2015)
- Kristina Bridger (*), Anna Lomasney, Kalina Warren (October 2015)
- Xueqing Gao (*), Mohammad Ghaffari, Moira Homann, Daisys Matthews (*), Liz Miller, Jay Silvanima, Ken Weaver (November 2015)
- Natalie Ayala, Jeremy Parrish (February 2016)
- Corey Anderson, Kirby Wolfe (March 2016)
- Matt Bearden, Alicia Hogue, Mike King, Jordan Skaggs (March 2017)
- Michael Eckles, Pam Flores (*), Denise Miller, Andrew Morris, Erin Rasnake, Lisa Schwenning, John Watts, Colin Wright (April 2017)
- Puja Jasrotia, Woo-Jun Kang, Celeste Lyon, Janis Morrow, Debby Smith (October 2017)
- Anita Nash, Julie Zimmerman (February 2018)
- Kevin O'Donnell, David Tyler, Katrina Yancey (identified for future training)

(*) No longer working for DEAR.

Dale Carnegie Management Training workshop attendance:

- Kevin Coyne (2015)
- Cheryl Swanson (2016)
- Kalina Warren (2017)
- Julie Espy (identified for future training)

Leading, Engaging, Advancing, Promoting, Sustaining (LEAPS) training series:

- Sara Davis, Julie Espy, Jackie Savage, Kerry Tate, Kalina Warren (2018)

Effectively Engaging DEP Stakeholders—NRLI Course training series:

- Anita Nash, Nia Wellendorf (2018)



DEAR Staff Development Plan for FY 2017-18

Attachment C—Other Training Opportunities for 2017-18

The following table represents other training needs identified by staff and managers. The department's human resources and information technologies teams have procured vendors for many of the requested items. The trainings identified as part of the "enterprise-wide training plan" are available upon request. Detailed instructions for signing up for these courses are contained on the division intranet page.

Staff and managers are free to contact the division office to coordinate attendance at a training session or arrange for the contracted vendor to provide a customized course. For trainings not included in the enterprise-wide plan, the division office may be able to assist in coordination and financing.

Name of Event	Enterprise-wide Training?	Vendor	Description	Cost per Participant
True Colors	Yes	Dr. Sarah (Tippy) Amick	Improving communications through identifying communication types. (Fee per participant based on number per class. \$900 for 1/2 day training up to 30 participants.)	\$30
Effective Business Writing	Yes	Dr. Deborah Coxwell-Teague	Customized class based on DEP examples and job aids. Overview of basic grammar and specifics on effectively communicating with the target audience. (Fee per participant based on number per class. \$400 per class plus travel at state rate where required.)	\$20
Courses for various Microsoft Office applications	Yes	Computer Tutors	Training in person in Tallahassee or online. One day each.	\$-
Supervisors Boot Camp	Yes	FSU-Florida Institute of Government	Supervisor to Leader: Road Map to Success. Solid basic to intermediate training for new supervisors and seasoned supervisors who need a refresher.	\$325 to \$345
RPI for Managers	Yes	Shelly Yaun	Explains the use of RPI to assess and development an improvement plan. Discusses how to use the final plan to manage and sustain an improved process.	\$125
RPI Facilitator Training	Yes	Shelly Yaun	Training on Rapid Process improvement for speed mapping a process and developing a plan to improvement. Recommendation from directors required.	\$750
Creating Story Maps with ArcGIS	No	Lynda.com, ESRI, or in-house	Instructor led.	\$0



DEAR Staff Development Plan for FY 2017-18
Attachment C—Other Training Opportunities for 2017-18

Name of Event	Enterprise-wide Training?	Vendor	Description	Cost per Participant
Basic GIS Training	No	Lynda.com, ESRI, or in-house	Topics including mapping and visualization, 3D GIS, and spatial analysis.	\$0
Programming ArcGIS with Python	No	Lynda.com or GeoSpatialTraining.com	Intermediate, self-paced study available anytime.	\$0
BOD Probe Training	No	YSI	Vendor training on use of YSI sensors and instruments.	\$0
ERAQC Webinars	No	ERA	Whole effluent toxicity training - multiple aspects.	\$0
Wellness Training	No	Maestro or Lynda.com	Various topics.	\$0
Statistics Training	No	Lynda.com or in-house	Overview of statistics, including use of JMP and/or other statistical software packages.	\$0
Coding with R or Python	No	Lynda.com or in-house	Various topics.	\$0
Meeting Facilitation	No	Maestro, Lynda.com, or NOAA workshop	Overview of meeting facilitation, including how to handle disruptive attendees.	\$0