

Texas A&M University-Corpus Christi
Science & Engineering, Physical & Environmental Sciences
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dorina.murgulet@tamucc.edu

EDUCATION

- **PhD Geology-December 2009**, The University of Alabama (UA), Tuscaloosa, AL
Dissertation topic: Groundwater flow dynamics and contaminant transport to coastal waters under low recharge conditions: regional-scale study of the aquifer system underlying southern Baldwin County, Alabama
 - **MS, Geology-December 2007**, The University of Alabama (UA), Tuscaloosa, AL
 - **MSc Geochemistry-June 2002**, Alexandru Ioan Cuza University, Iasi, Romania
 - **BS Engineering Geology-June 2000**, Alexandru Ioan Cuza University, Iasi, Romania
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PROFESSIONAL EXPERIENCE

- **Director, Center of Water Supply Studies**, Texas A&M University-Corpus Christi, September 2015-Present
 - **Assistant Professor of Geology**, Department of Physical and Environmental Sciences, Texas A&M University-Corpus Christi, August 2011-Present
 - **Research Geologist**, Groundwater Assessment Program, Geological Survey of Alabama, January 2009-2011
 - **Graduate Research Assistant**, Alabama Hydrogeology Group, Department of Geological Sciences, The University of Alabama, August 2005-August 2006 and January 2008-December 2008.
 - **Graduate Teaching Assistant**, Department of Geological Sciences, The University of Alabama, 2006-2007.
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TEACHING

GEOL 3433- Environmental Geology; GEOL 4444/ESCI 4490-Introduction to Hydrogeology; GEOL 5490/ESCI 5490-ADVANCED TOPICS: Advanced Hydrogeology; GEOL 4490/ESCI 4490- Selected Topics: Introduction to Soil and Groundwater Restoration; GEOL 5490/ESCI 5490-ADVANCED TOPICS: Advanced Soil and Groundwater Restoration; GEOL 1303, Essentials of Geology; ESCI-5101: Environmental Research Seminar; CMSS-6102: Seminar in Coastal and Marine System Sciences; ESCI 5596-Directed Independent Study; GEOL 4496- Directed Independent Study.

PUBLICATIONS (students supervised are denoted by ‘*’)

Peer-reviewed journals:

Khan, R. H. *, Smith-Engle J.M., and Tissot, P., **Murgulet D., (2016)**. Temporal Spatial and Depth Variations of Ground Water Chemistry: An Indicator of Hydro-Geochemical Evolution in Shallow Coastal Aquifers, South Texas. Gulf Coast Association of Geological Societies (GCAGS) Journal (*In Press*).

Murgulet, D., Murgulet, V., Spalt, N.*, Douglas, A.*, Hay, R.G. (2016) Impact of hydrological alterations on river-groundwater exchange and water quality in a semi-arid area. Science of the Total Environment. <http://dx.doi.org/10.1016/j.scitotenv.2016.07.198>.

Murgulet D., Cook M., and Murgulet V. (2016) Groundwater Mixing Between Different Aquifer Types in a Complex Structural Setting Discerned by Elemental and Stable Isotope Geochemistry. Journal of Hydrological Processes. DOI: 10.1002/hyp.10589.

Murgulet, D. and Tick, G.R. (2016) Effect of variable-density groundwater flow on nitrate flux to coastal waters. Journal of Hydrological Processes. DOI: 10.1002/hyp.10580

Tick, G.R., Harvell, J.R., and **Murgulet, D.** (2015) Intermediate-Scale Investigation of Enhanced-Solubilization Agents on the Dissolution and Removal of a Multicomponent Dense Nonaqueous Phase Liquid (DNAPL) Source. *Water Air and Soil Pollution*, doi: 10.1007/s11270-015-2636-7.

*Bighash, P. and **Murgulet, D.** (2015) Application of factor analysis and electrical resistivity to understand groundwater contributions to coastal embayments in semi-arid and hypersaline coastal settings. Science of the Total Environment. 532:688-701. doi: 10.1016/j.scitotenv.2015.06.077

Murgulet, D. and Tick, G.R., 2014, Understanding Sources and Fate of Nitrate in a Highly Developed Coastal Aquifer System, *Journal of Contaminant Hydrology*, v. 155, 69-81, ISSN 0169-7722, <http://dx.doi.org/10.1016/j.jconhyd.2013.09.004>.

Murgulet, D. and Tick, G.R., 2013, Integrating multi-isotope techniques to characterize groundwater flow dynamics and aquifer vulnerability, *Groundwater*, doi:10.1111/gwat.12020.

Murgulet, D. and Tick, G. R., 2009, Assessing the extent and sources of nitrate contamination in the aquifer system of southern Baldwin County, Alabama. *Environmental Geology*, doi 10.1007/s00254-008-1585-5.

Murgulet, D. and Tick, G.R., 2008, The extent of saltwater intrusion in southern Baldwin County, Alabama. *Environmental Geology*; doi 10.1007/s00254-007-1068-0.

Book, Chapter in Scholarly Book-Revised

Murgulet D., (2016) Volume I, Chapter 4, Groundwater Management (Aquifer storage and recovery, Overdraft). In Optimum, Sustainable, & Integrated Water Treatment/Usage. CRC Water Sustainability Handbook, Editor, Daniel H. Chen, Taylor & Francis/CRC Press, Boca Raton, FL (*In press, 2016*)

Murgulet D. (2016) Volume II, Chapter 2, Groundwater Contaminant Transport Mechanisms and Pollution Prevention. In Optimum, Sustainable, & Integrated Water Treatment/Usage. CRC Water Sustainability Handbook, Editor, Daniel H. Chen, Taylor & Francis/CRC Press, Boca Raton, FL (*In press, 2016*)

Murgulet D. (2016) Chapter 12. Effects of Climate Change and Sea Level Rise on Coastal Water Resources. In Emerging Issues in Groundwater the first book in the newly initiated Advances in Water Security book series with Springer publishing. Available through: <http://link.springer.com/book/10.1007/978-3-319-32008-3>

Submitted, In-review manuscripts

Murgulet, D., Murgulet, V., Hay, R., Mestas-Nunez, A., and Tissot, P. (2016) Relationships between Sea Surface Temperature Changes in the Pacific and Atlantic Oceans and South Texas Precipitation and Streamflow Variability. Hydrology Journal (*In Review*)

In Preparation; Not Yet Submitted

Academic Journals:

Trevino, M.*, Hu, X., Murgulet, V., Douglas, A.*, and **Murgulet, D.** Fluctuations of groundwater-derived alkalinity fluxes to a secondary bay: a temporal and spatial perspective. Environmental Science and Technology (*to be submitted November 2016*).

Khan, R. H.*, Smith-Engle J.M., and Tissot, P. **Murgulet D.** Predictive Modeling of Ground Water Salinity Contamination in Shallow Coastal Aquifers, South Texas. Environmental Earth Sciences (*to be submitted Fall 2016*).

Murgulet, D., Murgulet, V., Coffin, R., and Hampton, C.* Eagle Ford Shale Play Methane Source and Fate Assessment. Journal of Contaminant Hydrogeology (*to be submitted Spring 2017*).

Other Publications

Douglas, A.*, Spalt, N.*, **Murgulet, D., 2016.** Effects of naturally occurring radium activity and activity ratio heterogeneity on derived water mass ages and SGD: lessons learned from Nueces Bay, Texas. *Gulf Coast Association of Geological Societies Transactions (In Press)*.

Spalt, N.*, Douglas, A.*, **Murgulet, D., 2016.** Variation in SGD among Depositional Environments in a Semi-arid Coastal Area: Lessons Learned from South Texas Estuaries. *Gulf Coast Association of Geological Societies Transactions (In Press)*.

Murgulet, D., Wetz, MS, *Douglas, A, *Spalt, N, and *Linares, K. (2015). Evaluating Groundwater Inflow and Nutrient Transport to Texas Coastal Embayments. Scientific report submitted to Texas General Land Office August 2015.

Murgulet, D. and Hay, R. (2015). Technical Support document: Bacteria Total Maximum Daily Load for the Oso Creek Watershed, Texas. Submitted October 15, Contract No. 582-11-90501; Work Order No. 13

Cook, M., **Murgulet, D.**, and Rogers, A., 2014, Hydrogeologic characterization of Thomas Spring, Jefferson county, Alabama. Edited by GSA (Tuscaloosa: Geological Survey of Alabama, 2014. <http://www.gsa.state.al.us/downloads/SGAP/Thomas%20Spring/Thomas%20Spring%20GSA%20Assessment%20Report.pdf>.

*Khan, R.H. and **Murgulet, D.**, 2013, Analyses of salinity intrusion mechanisms in the south Texas coastal aquifers using multiple statistical techniques. *Geological Society of America Abstracts with Programs*, Vol. 45, No. 7, p.397.

*Khan, R.H. and **Murgulet, D.**, 2013, Comparative study of the changes in climatic condition and seasonal drought in the north-western part of bangladesh. *Geological Society of America Abstracts with Programs*, Vol. 45, No. 3, p.19.

Cook, M.R., **Murgulet, D.** and Moss, N., 2009, Potential for large-scale irrigation from groundwater sources in the Black Belt region of Alabama, *Geological Survey of Alabama, Open-file report: 0911*.

Tick, G.R. and **Murgulet, D.**, 2009, Sources and fate of nitrate in the aquifer system underlying southern Baldwin County, Alabama. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 651.

Murgulet, D. and Cook, M.R., 2009, Water-quality evaluation of the Choctawhatchee and Pea Rivers in southeast Alabama, *Geological Survey of Alabama, Open-file report: 0906*.

Murgulet, D. and Tick, G.R., 2009, Assessing sources of nitrate in groundwater and surface water using a dual isotope approach in southern Baldwin County, Alabama, Alabama Water Resources Research Institute (AWRRI) *Report UA 08-0295*.

Murgulet, D. and Tick, G.R., 2009, Characterization of groundwater resources in southern Baldwin County, Alabama: geophysical and geochemical surveys of saltwater intrusion and groundwater evolution” Alabama Department of Conservation Natural Resources (ADCNR) *Report UA 5-30402*.

Murgulet, D. and Cook, M.R., 2011, Groundwater hydrogeologic characterization, preservation, and development in the Trussville area, Jefferson and St. Clair Counties, *Geological Survey of Alabama, Open-file Report*.

Murgulet, D. and Cook, M.R., **2010**, Water-quality evaluation of the Choctawhatchee and Pea Rivers in southeast Alabama, *Geological Survey of Alabama*, Bulletin 182.

Cook, M.R., Moss, N., and **Murgulet, D.**, **2009**, Analysis of sediment loading rates for the Magnolia River Watershed, Baldwin County, Alabama 2009, *Geological Survey of Alabama*, Open-file report: 0914.

Murgulet, D. and Tick, G. R., **2008**, Assessing the Extent of Saltwater Intrusion in the Aquifer System of Southern Baldwin County, Alabama, *Proceedings Paper of the 20th Salt Water Intrusion Meeting (SWIM)*, June 23-27.

Presentations/Abstracts

Spalt, N., Douglas, A., **Murgulet, D.**, **2016**. Coupling ^{222}Rn measurements and geophysical techniques to constrain SGD occurrences in relation to estuarine depositional environments. VI International Ra-Rn Workshop, Girona, Spain. (July 18, 2016).

Douglas, A.R.*, Spalt, N.*, **Murgulet, D.**, **2016**. Effects of naturally occurring radium and radon activity heterogeneity on derived water mass ages and SGD: lessons learned from a semi-arid south Texas estuary. VI International Ra-Rn Workshop, Girona, Spain. (July 18, 2016).

Trevino, M.*, Hu, X., Douglas, A.*, Spalt, N.*, **Murgulet, D.**, **2016**. Alkalinity Dynamics in Groundwater Affected Secondary Bay in South Texas” Texas Bays and Estuaries Meeting, Port Aransas, Texas. (April 13, 2016).

Spalt, N.*, Douglas, A.*, Trevino, M.*, **Murgulet, D.**, **2016**. Postulating Hydrodynamic and Geochemical Processes Associated with Nutrient Delivery in Copano Bay, Texas. Texas Bays and Estuaries Meeting, Port Aransas, Texas. (April 13, 2016).

Douglas, A.*, Spalt, N.*, Trevino, M.*, **Murgulet, D.**, **2016**. The role of submarine groundwater discharge (SGD) as a pathway for nutrient discharge to Nueces Bay, Texas. Texas Bays and Estuaries Meeting, Port Aransas, Texas. (April 13, 2016).

Murgulet, D., **2015**. Submarine Groundwater Discharge and Nutrient Fluxes in a Semi-arid area: Lessons Learned from coastal South Texas; Texas A&M University-Kingsville, Environmental Engineering Department Seminar Series *Invited talk*.

Douglas, A.*, Spalt, N.*, **Murgulet, D.**, **2015**. Identifying Groundwater Discharge Sources and Associated Geochemical Influences Using Resistivity and Geochemical Tracers in a Semi-Arid Estuary in South Texas”. American Geophysical Union, San Francisco, California. (December 16, 2015).

Spalt, N.*, Douglas, A.*, **Murgulet, D.**, **2015**. Groundwater and Associated Solute Contribution to a Pristine Semi-Arid Estuary Using Resistivity Imaging, Naturally Occurring Radiative

Tracers, and Geochemical Methods". American Geophysical Union, San Francisco, California. (December 16, 2015).

Murgulet, D., Douglas, A.* , Spalt, N.* , **2015**. Processes Driving Submarine Groundwater Discharge and Nutrient Fluxes in a Semi-arid Coastal Area: Coastal South Texas, American Geophysical Union, San Francisco. (December 16, 2015).

Murgulet, V., Hay, R. G., **Murgulet, D.**, Groundwater Discharge and Salinity Sources to an Impaired Major River in a Semi-Arid Coastal Region: Nueces River, Texas, American Geophysical Union, San Francisco. (December 16, 2015).

Murgulet, D., Audrey, D. * , Nicholas, S. * , **2015**. Processes Driving Submarine Groundwater Discharge and Nutrient Fluxes in a Semi-arid Coastal Area: Coastal South Texas, American Geophysical Union, San Francisco. (December 16, 2015).

Douglas, A.* , Scotch, C.* , McBee, W.* , **Murgulet, D.**, **2015**. Linking seasonal variation of submarine groundwater discharge to nutrient fluxes in Nueces Bay, Texas," National Groundwater Summit, NGWA, San Antonio.

Murgulet, D., Audrey, D.* , **2015**. The Role of Groundwater and Submarine Groundwater Discharge in Coastal Systems" Teachers on the Estuary Workshop and Mission-Aransas NERR (June 2015) (*Invited*).

Murgulet, D., Coffin, R., Rose, P., Hay, R. G., **2014**. Shallow Aquifer Methane Gas Source Assessment, American Geophysical Union, AGU, San Francisco.

Murgulet, D., Douglass, A.* , Scotch, C.* , McBee, W.* , Hay, R. G., **2014**. Linking groundwater discharge to increased salinities in a semi-arid coastal area, Geological Society of America *Abstracts with Programs*. Vol. 46, No. 6, p.411.

Murgulet, V., Cook, M., **Murgulet, D.**, **2014**. Groundwater mixing along solution-enhanced fractures discerned by elemental and stable isotope geochemistry, Geological Society of America *Abstracts with Programs*. Vol. 46, No. 6, p.119.

McBee, W.* , Scotch, C. G.* , Douglas, A.* , **Murgulet, D.**, **2014**. Linking Seasonal Variation of Submarine Groundwater Discharge to Hypoxia in Corpus Christi Bay, Geological Society of America, *Abstracts with Programs*. Vol. 46, No. 6, p.116.

Murgulet, D., *Scotch, C. G., Hay, R. G., **2014**. Quantifying Groundwater Discharge Using Statistical Analysis of Temperature Time-Series and Resistivity Methods, Geological Society of America, *Abstracts with Programs*. Vol. 46, No. 6, p.743.

Hampton, C.* , Rose, P., Coffin, R., Boyd, T., **Murgulet, D.**, **2013**. Eagle Ford Shale Play Methane Source and Fate Assessment, American Geophysical Union, San Francisco.

Scotch, C. G.*, Hay, R. G., and **Murgulet, D. 2013.** Delineation of Surface-Groundwater Interactions Using Statistical Analysis of Temperature Time-Series and Resistivity Methods," American Geophysical Union, San Francisco.

Khan, R.H.* and **Murgulet, D., 2013.** Analyses of salinity intrusion mechanisms in the south texas coastal aquifers using multiple statistical techniques. *Geological Society of America Abstracts with Programs, Vol. 45, No. 7, p.397.*

Murgulet, D., Bighash, P.*, Scotch, C. G.*, Khan, R.*, Hay, R. G., **2013.** Evaluating groundwater inflow to Texas coastal embayments," *Oceanography* 2013.

Murgulet, D., Khan, R.*, Hay, R. G., Scotch, C. G.*, Minnich, B., **2013.** Applied Geophysical Concepts for Salinity Source Evaluation in the Tidal Nueces River, Texas, 2013 NGWA Summit — The National and International Conference on Groundwater, National Groundwater Association, San Antonio, Texas.

Murgulet, D., Bighash, P.*, Scotch, C. G.*, **2013.** Evaluation of groundwater inflows to a semiarid coastal bay in south Texas, ASLO Aquatic Science Meeting 2013, New Orleans.

Murgulet, D., Tick, G. R., Cook, M., Bighash, P.*, Scotch, C. G.*, Khan, R. H.*, **2013.** Combined use of gis, hydrostratigraphic, geochemical, and multi-isotope analysis for groundwater source evaluation, South Texas Geological Society, San Antonio (*Invited*).

Murgulet, D. and Tick, G. R., **2012.** Understanding the Sources and Fate of Nitrate in a Highly Developed Aquifer System," American Geophysical union (AGU), San Francisco.

Bighash, P.* and **Murgulet, D., 2012.** Utilizing Resistivity Soundings and Forensic Geochemistry to Better Understand the Groundwater Contributions and the Interaction with Surface Water in a Streambed in the Texas Gulf Coast Area, AGU, San Francisco.

Scotch, C. G. *, Hay, R. G., **Murgulet, D., 2012.** Utilizing Temperature and Resistivity Data as a Way to Characterize Water and Solute Movement and Groundwater-Surface Water Interaction in Variably Saturated Porous Media, American Geophysical union (AGU), San Francisco.

Bighash, P.*and **Murgulet, D., 2012.** Utilizing Resistivity Soundings and Forensic Geochemistry to Better Understand the Groundwater Contributions and the Interaction with Surface Water in a Streambed in the Texas Gulf Coast Area, SACNAS, Seattle.

Murgulet, D. (2012), Current and projected coastal aquifer vulnerability, Seawater Intrusion and Coastal Aquifer Vulnerability Workshop, Alabama, Alabama Department of Conservation and Natural Resources and Weeks Bay Reserve, Weeks Bay Reserve, AL (*Invited*).

Murgulet, D. and Cook, M., **2011.** Combined use of GIS, hydrostratigraphic, geochemical, and multi-isotope analysis for groundwater preservation and development in a complex karst setting, AGU, San Francisco.

Murgulet, D., 2011. Using isotope geochemistry tools in hydrogeologic investigations, 2011 Groundwater Conference, Alabama Department of Environmental Agency, Montgomery, AL.

Cook, M. R. and **Murgulet, D., 2011.** Hydrogeologic investigation of fractured karst aquifers in an urban Alabama Valley and Ridge Setting, 2011 Ground Water Summit and Ground Water Protection Council Spring Meeting, National Groundwater Association, Baltimore.

Murgulet, D., 2010. Coastal groundwater contamination in relation to flow dynamics, 24th Annual Alabama Water Resources Conference and Symposium, Fall 2010.

Murgulet, D., 2009. Groundwater flow characterization under severe drought conditions using multi-isotope data, *Geological Sciences Advisory Board Fall Meeting*, The University of Alabama.

Tick, G.R. and **Murgulet, D., 2009.** Sources and fate of nitrate in the aquifer system underlying southern Baldwin County, Alabama. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 651.

Murgulet, D. and Tick, G.R., 2009. Characterization of the groundwater flow system of Southern Baldwin County, Alabama using multi-isotope data, 24th Annual Alabama Water Resources Conference and Symposium, Fall 2009.

Murgulet, D. and Tick, G.R., 2008. Evaluation of the origin and fate of nitrate in the aquifer system of southern Baldwin County, Alabama using multi-isotope data. American Geophysical Union Fall Meeting.

Murgulet, D. and Tick, G. R., 2008. Assessing the Extent of Saltwater Intrusion in the Aquifer System of Southern Baldwin County, Alabama, Proceedings Paper of the 20th Salt Water Intrusion Meeting (SWIM), June 23-27.

Murgulet, D. and Tick, G.R., 2006. The extent of saltwater intrusion, Southern Baldwin County. American Geophysical Union Fall Meeting.

Murgulet, D. and Tick, G.R., 2006. The extent of saltwater intrusion, Southern Baldwin County. Bama Grad Expo (November 2006).

Murgulet, D. and Tick, G.R., 2006. "Preliminary Results for the Extent of Saltwater Intrusion in Southern Baldwin County, Alabama." 2006 Geological Sciences Advisory Board Spring Meeting.

PROFESSIONAL DEVELOPMENT

- Mentor and Scientific Advisor for the NASA Develop National Program (2015)
- Aquifer Storage and Recovery, TAMU system team expert
- Seawater Intrusion and Coastal Aquifer Vulnerability Workshop
- Early Career Geoscience Faculty workshop participant, National Science Foundation.)

- Professional Development and Review of eLearning workshop participant, TAMUCC.
 - Research Coordination Network for Science, Engineering and Education for Sustainability on Climate, Energy, Environment and Engagement in Semiarid Regions RCN CE3SAR Charrette workshop participant
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FUNDED CONTRACTS, GRANTS AND SPONSORED RESEARCH

External

Murgulet, Dorina (Principal), " CAREER: Climate Change, the hydrologic cycle, and Integrated Water Resource Management," Sponsored by the National Science Foundation, \$595,832.00. (Feb. 2016 – January 2021). **Under Review**

Murgulet, Dorina (Co-Principal), Hussain, Abdula (Principal), Brandi, Reese (Co-Principal, David, Felix (Co-Principal). NGOMEX 2016: The role of benthic flux- derived dissolved organic nitrogen in enhancing the Gulf of Mexico hypoxia. Sponsored by the DOC-National Oceanic and Atmospheric Administration, \$1,197,201 (Sept. 2016-august 202). **Under review**

Xinping Hu (Principal) and **Murgulet, Dorina (Co-Principal)**, " Evaluating Groundwater Exported Acidity in the Copano Bay," Sponsored by Texas General Land Office (NOAA-CMP), \$98,205.00. (October 2016 – March 2018)-**selected for funding**

Murgulet, Dorina (Principal), " Impacts of Temporal and Spatial Variation of Submarine Groundwater Discharge on Nutrient Fluxes to Texas Coastal Embayments," Sponsored by Texas General Land Office (NOAA-CMP), \$92,747.00. (October 2016 – March 2018)- **selected for funding**

Murgulet, Dorina (Principal), Clapp, Lee W (Principal), "Evaluation of Alternative Reductants for Stimulating Uranium Reduction and Immobilization," Sponsored by TAMUS-AGAP, \$14,000.00. (January 2015 - August 2017) -**Awarded**

Billiot, Eugene (Principal), Billiot, Feri (Co-Principal), **Murgulet, Dorina (Co-Principal)**, "MRI: Acquisition of an Agilent 7100 Capillary Electrophoresis Instrument for the Enhancement of Research/Teaching at Texas A&M University-Corpus Christi" Sponsored by National Science Foundation, \$61,137.00. (Sept. 2015 – August 2015)-**Awarded**

Murgulet, Dorina (Principal), "Evaluating groundwater inflow and nutrient transport to Texas coastal embayments, Phase III," Sponsored by Texas General Land Office (NOAA-CMP), \$99,500.00. (October 2015 – March 2017)-**Awarded**

Murgulet, Dorina (Principal), Hay, Richard George (Supporting), "Support for a Total Maximum Daily Load (TMDL) for Indicator Bacteria in Oso Creek, Phase II" Sponsored by Texas Commission on Environmental Quality (TCEQ), \$65,000.00. –**Awarded**

Murgulet, Dorina (Principal), Hay, Richard George (Co-Principal), "Nueces River salinity source evaluation," Sponsored by Lyondellbasell Corpus Christi Plant Site, Private, \$13,000.00. (November 2014 – August 2016). **Awarded**

Murgulet, Dorina (Institutional PI), Gretchen Miller (Principal), Calvin Finch (Co-I), Michael Martin (Co-I), Brenda Rushing (Co-PI/Collaborator), Evaluating groundwater inflow and nutrient transport to Texas coastal embayments, Aquifer Storage and Recovery for Texas – A Research and Extension Initiative " Sponsored by Research, Engineering, and Extension: Creation and Deployment of Water-Use Efficient Technology Platforms FY'14-FY'15, \$221,113.00. (June 2014 - December 2015)-**Awarded**

Murgulet, Dorina (Co-Principal), Hay, Richard George (Principal), "Support for a Total Maximum Daily Load (TMDL) for Indicator Bacteria in Oso Creek," Sponsored by Texas Commission on Environmental Quality (TCEQ), \$85,000.00–**Awarded**

Murgulet, Dorina (Principal), Hay, Richard George (Principal), "Nueces River salinity source evaluation," Sponsored by Lyondellbasell Corpus Christi Plant Site, Private, \$3,000.00. (November 2013 – August 2014) – **Awarded**

Murgulet, Dorina (Principal), Wetz, Michael S (Co-Principal), "Evaluating groundwater inflow and nutrient transport to Texas coastal embayments, Phase II," Sponsored by Texas General Land Office (NOAA-CMP), \$94,924.00. (October 2014 - Present)-**Awarded**

Murgulet, Dorina (Principal), Montagna, Paul A. (Co-Principal), Uhlman, Kristine (Supporting), "Evaluating Groundwater Surface-Water Inflow and Nutrient Transport to Texas Coastal Embayments," Sponsored by Texas Sea Grant College Programs, \$217,000.00. (April 2014 - Present)- **Awarded**

Murgulet, Dorina (Principal), Wetz, Michael S (Co-Principal), "Evaluating groundwater inflow and nutrient transport to Texas coastal embayments," Sponsored by Texas General Land Office (NOAA CMP), \$85,686.00. (October 2013 - March 2015)-**Awarded**

Internal

Murgulet, Dorina (Principal), " Groundwater/Surface-Water Transport o Nutrients Contributing to Gulf of Mexico Coastal Margin Hypoxia And Ecosystem Degradation", Proposal resubmission incentive, Sponsored by TRDF, Texas A&M University-Corpus Christi, \$2,500.00. (October 2013 - August 31, 2014) – **Awarded**

Murgulet, Dorina (Principal), " No3-N Trading as Part of Life Cycle Systems to Assure Upstream Agricultural Sustainability and Mitigate Downstream Coastal Ecosystems Risk," Proposal resubmission incentive, Sponsored by TRDF, Texas A&M University-Corpus Christi, \$2,500.00. (October 2013 - August 31, 2014) – **Awarded**

Murgulet, Dorina (Principal), "Thermal Remote Sensing and Resistivity Soundings for Freshwater Availability and Drought Mitigation Thermal Remote Sensing and Resistivity Soundings for Freshwater Availability and Drought Mitigation," Sponsored by College of Science and Engineering-Faculty Research Enhancement Grant, Texas A&M University-Corpus Christi, \$2,300.00. (October 2012 - August 2013) – **Awarded**

Murgulet, Dorina (Principal), "University Level Research Enhancement Grant-Groundwater Inflows and Salinity Source Evaluation in a Tidal Riverine System," Texas Research Development Fund (TRDF), State, \$5,000.00. (December 15, 2012 - August 15, 2013) – **Awarded**

Murgulet, Dorina (Principal), "New Faculty Development Program Awards," Texas A&M University-Corpus Christi, \$2,500.00. (January 2012 - August 2012) – **Awarded**

Murgulet, Dorina (Principal), "Groundwater Resources Research using Resistivity Imaging Techniques," Sponsored by TRDF, Texas A&M University-Corpus Christi, \$2,500.00. (November 2011 - August 30, 2012) – **Awarded**

Murgulet, Dorina (Principal), "College Level Faculty Research Fund-An Evaluation of Drought Impacts on Freshwater Resources Using Thermal Remote Sensing and Resistivity Soundings," Sponsored by TRDF, Texas A&M University-Corpus Christi, \$2,249.00. (July 2012 - August 31, 2013) – **Awarded**

Murgulet, Dorina (Principal), "Management of coastal water resources," New Investigator Initiative, Sponsored by TRDF, Texas A&M University-Corpus Christi, \$1,250.00. (June 7, 2012 - August 31, 2012) – **Awarded**

Murgulet, Dorina (Principal), "Thermal Remote Sensing," Proposal resubmission incentive, Sponsored by TRDF, Texas A&M University-Corpus Christi, \$2,500 .00. (June 6, 2012 - August 31, 2012) - **Awarded**

THESIS, PROJECT, OR DISSERTATION SUPERVISION

Directed Individual/Independent Study (Graduate and undergraduate)

Cody Lopez, Katie Coeckelenbergh, William McBee; Melissa Trevino; Nicholas Spalt; Alex Wade; Luis Lugo; Chester Scotch; Neil Rosales; Kellie Rulong; Dawn Yandle.

Doctoral Advisory Committee Chair

Bimal Gywali (Coastal & Marine Systems Science) In-Process (June 2016- Present)
Audrey Douglas (Coastal & Marine Systems Science) In-Process (January 2014- Present)
- *successfully defended the research proposal*
- *in progress qualifying exams (completed four out of 6 written exams)*
Riaz Khan (Coastal & Marine Systems Science)- **graduated with MS** (August 2012 – December 2014)

Master's Thesis Committee Chair

Cody Lopez (Environmental Science, Fall 2016 - Present) In-Process.

Melanie Lynch (Environmental Science, Summer 2016 - Present) In-Process.

Katie Coeckelenbergh (Environmental Science, Spring 2016 - Present) In-Process: *Proposal to be submitted Fall 2016; Expected graduation is Fall 2017* (out of campus full-time job).

Nicholas Spalt (Environmental Science, January 2015 - Present) In-Process: *Proposal submitted Fall 2015; Expected graduation is Fall 2016.*

Melissa Trevino (Environmental Science, Fall 2014 – August 2016) **Graduated Summer 2016**

Allison Corcoran (Environmental Science, Spring 2014 - Present) In-Process: *Proposal to be submitted Fall 2016; Expected graduation is Spring 2017* (out of campus full-time job).

Jennifer Washborn (Environmental Science, Spring 2015 - Present) In-Process: *Proposal to be submitted Spring 2017; Expected graduation is Spring 2018* (out of campus full-time job).

William McBee (Environmental Science, Spring 2013 - Present) In-Process: *Proposal submitted Spring 2016; Expected graduation is Fall 2016* (out of campus full-time job).

Alex Wade (Environmental Science, August 2012 – May 2014) – **Graduated Spring 2014**

Chester Gene Scotch (Environmental Science, Spring 2012 - Present) In-Process: *Proposal submitted Fall 2014; Expected graduation is Fall 2016* (out of campus full-time job).

Paniz Bighash (Environmental Science, October 2011 - October 2013)-**Graduated Fall 2013**

Doctoral and Master's Thesis Committee Member

Ossia Nebechi, Dissertation committee member, Texas A&M University at Kingsville, Environmental Engineering Department, In-Process (January 2015 - Present)

Brian Brathovd, Master's thesis committee member, University of Alabama, Department of Geological Sciences (Spring 2016-present)

Cheyenne Olson, Master's thesis committee member, Texas A&M University-Corpus Christi. In-Process (Spring 2016 - Present)

Onyinyechi Anyanso, Master's thesis committee member, Texas A&M University at **Kingsville**, Environmental Engineering Department. In-Process (Summer 2016 - Present)

Kelly Brieden,

Supervised Research/ McNair Scholars

Courtne Hampton (Environmental Sciences major, Chemistry Minor) "Groundwater methane source evaluation in South Texas" Completed (Spring 2013 - Fall 2013)

Kellie Rulong (Geology) "Porosity and Hydraulic Conductivity of Sediments in a Semi-Arid Environment in Relation to Groundwater – Surface-water Interactions" Completed (Spring 2013 - Fall 2013)

Luis Lugo (Geology) "Application of hydrologic field measurements for improved understanding of groundwater-surface water interaction" In-Process (Spring 2014 – fall 2015)

Academic Advising/Mentoring

2011-2015

Number of Undergraduate Advisees	10	Number of Graduate Advisees	17
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