Greg Schundler Olympia, WA

February 23, 2016

Dear Ladies and Gentlemen,

GIS applications are changing the way we think about problems and make decisions. I am passionate about sharing the power of maps and spatial data to guide important decisions at all scales. Adapting the complexity of GIS to clients of all backgrounds and orientations is essential in realizing more efficient, progressive, inclusive, environmentally sustainable, and profitable businesses, governments, and communities. My diverse work history includes analysis and project management in energy private equity, energy manufacturing, the environmental nonprofit sector, and consumer goods marketing, as well as authoring publications, fundraising, and more. My experience as a GIS coordinator and Master's training in GIS make an excellent fit for this position.

For the past two years, I served as the GIS and Development Coordinator for a \$2 million per year, Tacoma-based NGO called Earth Economics. As the only GIS professional on staff, I embraced the challenge of juggling five to ten geospatial projects of various scales with varying timelines. Communicating the value of GIS, troubleshooting, and developing new applications were all central to my role at Earth Economics. I have interfaced with clients, colleagues, and the public in presenting the value of GIS technology and applications. Data sources include raster, landcover/landuse, census, administrative, as well as self-digitized polygon, point, line, and network data sets as well as remote sensing imagery ERDAS Imagine, ENVI, IDRISI BEAM. I have worked with satellite and aircraft images, soil and plant samples, digital elevation models, planter and harvester monitors, weather radar data, general circulation models, agricultural statistics, geological surveys, and more. I have experience developing ArcGIS Online enterprise level webmaps, StoryMaps, and collaboration platforms. Please see <u>my StoryMap</u> I published for the Washington State Audubon Society. I was responsible for designing and deploying our first special GIS hardware and software as well as data management architecture, including establishing data standards, versioning protocol, and system resource deployment.

I contributed spatial analysis and cartographic products for several studies and was project lead, chief analyst, and coauthor for three studies: <u>Washington State Outdoor Recreation</u>, <u>Washington State Parks</u>, and a <u>county-level</u> nearshore natural capital evaluation. I raised hundreds of thousands of dollars in contracts, funding, and in-kind contributions through my fund development efforts and grant/proposal writing. I earned several contracts from Washington State agencies and also improved our GIS software and hardware capabilities through grants. I have interfaced with clients, colleagues, and the public in presenting the value of GIS technology and applications. I have also trained and supported professionals with varying levels of familiarity with GIS through one-on-one mentorship, troubleshooting, technical demonstrations, and on-going, as-needed project assistance, and the management of new GIS staff and interns.

In August of 2015, I completed a Master's Program in GIS for Sustainability Management at the University of Washington, where I learned geographic theory, geospatial data management, principles of remote sensing, spatial statistics, Python, AnyLogic, SPSS statistical software, Arc Modelbuilder, ArcGIS Online,

SQL, and multi-criterion decision modeling among other technical skills. I was able to augment my education with almost immediate translation of my course work into technical expertise with interactive GIS platforms, cartographic products, custom maps and analysis, web applications and geodatabases for a variety of clients.

Prior to my Master's degree, I developed a foundation of professional skills with more than five years of experience in research, analysis, finance, and marketing. I managed a wide variety of datasets, authored research reports, innovated data visualizations, managed budgets, and presented for private and public audiences. Throughout my career, I have directly consulted firm leadership on strategy and business development, while executing growth strategies. My teaching, mentoring, and management experience would be a perfect fit for positions that require project management, quality mentorship, and technical assistance.

Aside from my work life, I have had incredible experiences offering volunteer services as a "GIS evangelist" to community entities in Olympia who otherwise do not have GIS capabilities including: <u>lecturing at Evergreen State College</u>, building an economic case for <u>estuary restoration</u> in Olympia, <u>reducing superfluous parking surfaces</u> in Tacoma, designing a marketing campaign map for the local Steamboat Junction farm, and providing analysis for the Thurston County Watershed Work Group, the Deschutes Estuary Restoration Team, the South of the Sound Farmland Trust, and Garden Raised Urban Bounty, among others.

Thank you for considering my application.

Sincerely,

By H. film

Greg Schundler

GREG H. SCHUNDLER

Olympia, WA gregschundler@

Summary: Master Degree in GIS for Sustainability Management at University of Washington with over 5 years of diverse work experience providing technical assistance and consultation in GIS, finance, energy, and natural resources; Research development and data management/analysis for planning and optimizing operations; Diversified education and experience in GIS, Climate, Ecology, Energy, Agriculture, and Sustainability; Management and administrative experience for efficient project management and strategic development

Professional Experience

EARTH ECONOMICS, *Tacoma*, *WA* - \$2.0 million per year environmental non-profit **GIS and Development Director (2013-2015)**

- Commanded lead positions in GIS and Fund Development while performing project management and analyst functions
- Authored and won proposals totaling \$1,000,000 as fundraising coordinator
- Expanded GIS hardware, software, and staff capacity as GIS coordinator
- Managed a team of 6 research assistants and interns; attracted and trained volunteers and research assistants
- Co-author and GIS lead of the nation's most comprehensive outdoor recreation study

FUNGI PERFECTI-HOST DEFENSE, Olympia, WA – \$2 million per year organic mushroom company

Sales Director (2011-2012)

- Analyzed company revenue, pricing, and discounting structure on national and regional levels
- Managed all aspects of product marketing, sales, and customer service
- Designed new website concept and marketing materials
- Opened over 100 accounts totaling over \$100,000 in sales; cultivated 30% growth in 3,000 accounts

DHA ENERGY, Schenectady, NY - \$6 million per year energy component manufacturer Business Development Associate (2010)

- Furnished capital infusion offers ranging from \$10-100 million by identifying and attracting private equity investors
- Doubled company revenue within two years; Led sales expansion effort into renewable energy markets (e.g. wind and tidal)
- Spearheaded effort to find equity investors receiving offers from \$10-100 million
- Developed new website and logo

ENERGY CAPITAL PARTNERS, Short Hills, NJ - \$5 billion private equity fund focused on energy Analyst (2007-2008)

- Completed training program in financial analysis
- Drafted marketing booklet for the sale of First Light Power Enterprises, a multi-billion dollar portfolio of energy generation assets in New England (over 20% ROI)
- Research and analysis lead for development and acquisition opportunities in energy infrastructure including those in conventional fossil fuel generation, renewables, environmental financial instruments, energy efficiency, and gas storage

Education

UNIVERSITY OF WASHINGTON, Class of 2015

MS GIS for Sustainability Management

- Coursework in GIS Problem Solving, Database Management, Cartography, Data Analysis, Programming, Coastal GIS, GIS and Decision Support, International Case Studies for Sustainability Management
- Final projects for outsides clients included Governor Inslee, State Senators Chase and Ranker, Deschutes River Estuary Restoration Team, Washington Audubon Society
- Extensive experience with diverse datasets: demographic (census), environmental (land use/landcover), and bureaucratic boundaries (municipalities and legislative districts)

PRINCETON UNIVERSITY, Class of 2007

BA Ecology and Evolutionary Biology with Certificate in Neuroscience

- Award-winning thesis work on neuroeconomics
- Princeton Semester in the Field at Mpala Research Center, Kenya; researched savanna ecology, conservation biology, restoration ecology, and animal behavior; consulted a game reserve, assessed and consulted the management of a limestone mine restoration project, supported eco-tourism projects
- Leadership Experience as President of Club Lacrosse, President of Zeta Psi Fraternity, and Director of Princeton Alumni Reunions

Skills & Interests

- Computer Skills: GIS: ArcMap, ArcScene, ArcCatalog, Python, AnyLogic, Salesforce; MS Sharepoint, Excel, Powerpoint, Word; Adobe Photoshop; Customer Management Databases; Energy Velocity; Capital IQ; Intralinks; Bloomberg; Google Applications; Matlab; Amazon Web Services; SQL; QGIS
- Language Skills: Fluent in German, Beginner in Italian
- **Sustainability**: boat carpentry apprentice at the Carpenter's Boatshop in Pemaquid, Maine; consultant, carpenter, and organic farmer on Tuckahoe Plantation, Richmond, Virginia; boarding school teacher, coach, & maple forest manager Lake Placid, NY; shellfish farmer in Olympia, Washington

• **Interests:** skiing, sailing, cycling, canoeing, camping, hiking, gardening; study abroad and travel in 20 countries; guitar player and singer

References for Greg H. Schundler

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David Dussault Founder and CEO DHA Energy Schenectady, NY Phone: Email: <u>dwdussault@</u>

Deschutes Estuary Restoration as a Tourism Promotion and Economic Development Strategy: Executive Summary

- Washington State's outdoor recreation economy mid-ranking when scaled to resident population and compared to other States; it is one of two states with no State tourism promotion budget; the Puget Sound is the strongest common tourism asset for Legislative Districts that border it; Capitol Estuary would be a strong symbol for Tribal Relations and Washington State values
- **Thurston County's** per capita outdoor recreation employment is in the lowest quintile for all Washington Counties; food, beverage, accommodations, and retail are among the largest employers in the county; 30% of the county's populace is low income or in poverty
- The **City of Olympia** is one of the worst performing Pacific Northwest cities in terms of tourism expenditures, despite a robust winter season from colleges and the legislature
- Urban Estuaries (within a 5-10 minute walk of city center) are globally unique; estuary restoration is an opportunity for a unique attraction and would likely be a draw and powerful symbol for Washington's Capitol

Nearly 50% of the state budget is from sales tax....state tax structure is set up to take advantage of outdoor recreation expenditures

State Level

Tourism Promotion and Economic Development

Tourism & Travel Spending Rising in the Northwest



Tourism Spending in the Olympia Area (millions)





*Tourism is on the rise in the region





Figure 13. Total Outdoor Recreation Expenditures by Legislative District



Figure 14. Total Outdoor Recreation Expenditures by Legislative District, Puget Sound Inset



*The Puget Sound is an outdoor recreation asset for a majority of state districts







*Public waters is the highest category by far for expenditures; 200,000 jobs state wide for outdoor recreation in diverse sectors; the highest spending activities would all be attracted by an estuary

- Out-of-state visitors accounted for an estimated 12% of participant days and 27% of total outdoor recreation spending, not including equipment purchases.
- Every dollar spent by an out-of-state traveler in Washington generates \$1.36 in economic impacts.
- Visitors to National Park Service lands accounted for 48% of out-of-state participant days and 77% of total National Park Service related expenditures.
- Impact analysis highlights the importance of promoting outdoor recreation in Washington beyond state borders.



Figure 7. Participant Days on all Recreational Land Types, Including Events on Public Lands

446,027,000 total participant days



Figure 8. Expenditure Categories for All Recreational Land Types

\$21,635,335,000 recreation related expenditures across all land types



*Public Waters, Events, and Local Parks comprise 76% of our outdoor recreation time; spending is distributed among many sectors

Land Type	Participant Days ('000s)	Expenditures** ('000s, 2014 USD)	Per-Person Per- Day Expenditures (2014 USD) \$40	
Total Federal Lands	32,853	\$1,323,545		
National Parks & National Recreational Areas	6,466	\$344,057	\$53	
National Forests	12,279	\$535,494	\$44	
National Wildlife Refuges	898	\$18,090	\$20	
U.S. Army Corps of Engineers	12,748	\$405,772	\$32	
BLM	462	\$20,133	\$44	
Total State Lands	49,095	\$1,347,192	\$27	
State Parks	33,059	\$699,289	\$21	
State DNR Lands	10,281	\$448,359	\$44	
WDFW Game Management Units	1,755	\$118,945	\$6	
WDFW Wildlife Areas	4,000	\$80,600	\$20	
Public Waters	101,701	\$4,630,986	\$46	
Fishing	19,494	\$805,288 \$1,641,007 \$578,669 \$560,219 \$123,153	\$41	
Motorized Boating & Sailing	19,171		\$86	
Non-Motorized Paddle Sports	7,669		\$7 \$4	
Inner tubing or floating	12,753			
Non-Motorized Windsurfing/Surfing	1,399		\$88	
Swimming in natural waters	26,624	\$525,818	\$20	
Swimming (outdoor pools)	13,498	\$266,591	\$20	
Scuba diving	1,094	\$130,242	\$119	
Total Local Parks	189,915	\$1,439,096	\$8	
County Parks	34,857	\$243,999	\$7	
City and Special district Parks	153,371	\$1,073,597	\$7	
Municipal Golf	1,687	\$121,500	\$72	
Events*	44,516	\$1,439,096	\$45	
Total	418,081	\$10,727,131		

* Events occurring on public lands ** Excludes equipment expenditures *Participation

*Participation and Spending by Activity Type

Table 17. Out-of-State Visitors and Associated Recreation-Related Expenditures* by Land Type

Land Type	Total Participant Days ('000s)	Expenditures* ('000s, 2014 USD)	Per-Person Per-Day Expenditures (2014 USD)
Federal Lands Total	9,207	\$621,147	\$67
National Parks & National Recreational Areas	3,091	\$263,827	\$85
National Forests	2,487	\$208,730	\$84
National Wildlife Refuges	307	\$13,264	\$43
Corps of Engineers	3,276	\$130,854	\$40
BLM	46	\$4,473	\$97
Washington State Lands Total	6,227	\$369,775	\$59
State Parks	3,769	\$216,007	\$57
State DNR Lands	1,028	\$86,303	\$84
WDFW Game Management Units	70	\$8,713	\$124
WDFW Wildlife Areas	1,360	\$58,752	\$43
Public Waters Total	9,303	\$692,440	\$74
Fishing	1,657	\$244,193	\$147
Motorized Boating & Sailing	1,342	\$154,466	\$115
Non-Motorized Paddle Sports	767	\$77,814	\$101
Inner tubing or floating	1,275	\$75,329	\$59
Non-Motorized Windsurfing/Surfing	140	\$16,560	\$118
Swimming in natural waters	2,662	\$70,713	\$27
Swimming (outdoor pools)	1,350	\$35,851	\$27
Scuba diving	109	\$17,514	\$160
Local Parks Total	18,992	\$157,028	\$8
County Parks	3,486	\$24,400	\$7
City and Special District Parks	15,337	\$107,360	\$7
Municipal Golf	169	\$25,269	\$150
Events**	8,903	\$1,173,180	\$132
Private Lands Total***	3,102	\$427,589	\$138
Private Timberland Recreation	827	\$84,228	\$102
Skiing	176	\$72,457	\$411
Private Golf	836	\$125,136	\$150
Horseback Riding	1,263	\$145,768	\$115
Grand Total	55,734	\$3,441,158	

*Excludes equipment expenditures

**Events occurring on public lands

***A limited number of private lands were included in this analysis

Table 27. Consumer Surplus of Outdoor Recreation on Public Recreational Land Types in Washington State

	Participant Days* ('000s)	Consumer Surplus per day (2014 USD)	Consumer Surplus per year ('000s, 2014 USD)
Federal Lands Total	32,853		\$1,809,691
National Parks & National Recreation Areas	6,466	\$44	\$287,444
National Forests	12,279	\$53	\$645,631
National Wildlife Refuges	898	\$43	\$38,890
Corps of Engineers	12,748	\$64	\$813,452
Bureau of Land Management	462	\$53	\$24,274
Washington State Lands Total	49,095		\$1,872,298
State Parks	33,059	\$38	\$1,243,189
State DNR Lands	10,281	\$26	\$266,740
WDFW Game Management Units	1,755	\$61	\$107,131
WDFW Wildlife Areas	4,000	\$64	\$255,239
Public Waters	88,203		\$3,880,613
Fishing	19,494	\$66	\$1,293,072
Motorized Boating & Sailing	19,171	\$26	\$498,135
Non-Motorized Paddle Sports	7,669	\$38	\$292,731
Inner tubing or floating	12,753	\$50	\$641,694
Non-Motorized Windsurfing/Surfing	1,399	\$50	\$70,419
Swimming in natural waters	26,624	\$38	\$1,008,316
Scuba diving	1,094	\$70	\$76,246
Local Lands	188,228		\$12,010,768
County Parks	34,857	\$64	\$2,224,216
City Parks and Special Districts	153,371	\$64	\$9,786,552
Grand Total	358,379		\$19,573,370

* Note that events and private lands were not included in this analysis, so the total number of participant days in this table differs from previous tables.

*Public Waters attract more out of state visitor spending than all Federal Lands (National Parks, Forests, Wildlife Refugres Corps of Engineers and BLM lands)! Fishing alone attracts nearly as much spending as all the national parks

Restoration Effect on Visitation



- Elwha Visitation increased 300% with 300,000 new visitors
- Average \$53.21 per day expenditures would yield roughly \$16.0 million in increased consumer expenditures per year
- Nisqually NWR visitation increased 25% above
- Average \$20 per day expenditures would yield \$800,000 increased expenditures per year

*Estuaries attract visitors perhaps because they are rare and provide continual, seasonal, and tidal visual transformation-this attracts visitors

*The Thurston County outdoor recreation economy produces more economic activity than the Port of Olympia

County Level

Tourism Promotion and Economic Development

Jobs: Tourism, Visitors, and Outdoor Recreation



*Thurston County employment and poverty closely track to the state, but it has a relatively weak tourism economy compared to other areas



MEASURE: Percent of county residents in the labor force who are unemployed.



Data Source: Local Area Unemployment Statistics (10)

How much do different outdoor recreation activities in Thurston County generate in spending per year?



*Estimated outdoor recreation related expenditures of both residents and visitors equals \$755 Billion/year; overnight visitor spending is estimated at \$209.7 million in 2003

	٦	able	F-1.	Economic (Contribution	Results, B	y County (continued)	
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County	Total Expenditures* (000's)	Economic Contribution (000's)	Multiplier	Employment	State and Local Tax (000's)
PEND OREILLE	\$68,066	\$19,736	0.29	250	\$2,829
PIERCE	\$2,252,445	\$1,612,372	0.72	17,243	\$176,352
SAN JUAN	\$121,776	\$94,363	0.77	1,134	\$10,557
SKAGIT	\$479,877	\$349,972	0.73	3,805	\$38,281
SKAMANIA	\$199,386	\$120,784	0.61	1,481	\$15,873
SNOHOMISH	\$2,073,726	\$1,225,092	0.59	14,926	\$150,405
SPOKANE	\$1,308,264	\$1,177,345	0.90	12,460	\$118,766
STEVENS	\$235,766	\$125,812	0.53	1,719	\$18,133
THURSTON	\$755,537	\$476,050	0.63	5,616	\$58,735
WAHKIAKUM	\$20,717	\$6,710	0.32	111	\$1,057
WALLA WALLA	\$159,949	\$94,593	0.59	1,133	\$11,504
WHATCOM	\$705,093	\$584,754	0.83	6,502	\$62,712
WHITMAN	\$146,083	\$67,389	0.46	926	\$9,417
YAKIMA	\$669,931	\$433,425	0.65	5,398	\$55,037
Washington**	\$21,635,336	\$20,520,858	0.95	198,658	\$2,010,992

Comparative Changes over the last five years: 2014 to 2009

PORT OF OLYMPIA	2014 TOTAL	2009 TOTAL	TOTAL CHANGE
JOBS			
DIRECT	2,400	3,043	-643
INDUCED	1,168		
INDIRECT	830	2,816	
TOTAL	4,397	7,249	-2,852
PERSONAL INCOME (MILLIONS)			
DIRECT	\$106.1	\$112.5	-\$6.4
RE-SPENDING/LOCAL CONSUMPTION	\$96.0	\$94.5	\$1.5
INDIRECT	\$34.0	\$143.7	-\$109.7
TOTAL	\$23 <mark>6</mark> .1	\$350.7	-\$114.6
BUSINESS REVENUE (MILLIONS)	\$287.7	\$1,062.2	- <mark>\$</mark> 774.5
LOCAL PURCHASES (MILLIONS)	\$90.3	\$439.7	-\$349.4
STATE/LOCAL TAXES (MILLIONS)	\$22.2	\$31.2	-\$9.0

*Includes equipment expenditures

**Counties do not total to Washington State due to region-specific modeling

*Outdoor Recreation in Thurston County has an economic contribution twice that of the Port of Olympia

*Outdoor Recreation stimulates more employment than the Port of Olympia

*Outdoor Recreation stimulates almost three (3x) times as much in tax collections

*The lowest wages in the county are in tourism dependent sectors (accommodation, food services, and retail); those sectors are top employment sectors for the outdoor recreation economy

Covered Employment Wages by Industry (2002 to 2014)



Table 5. Employment Associated with Outdoor Recreation, by Sector

Sector	Employment
Food and beverage places	36,047
Retail Stores - Sporting goods, etc.	30,190
Other amusement and recreation industries	25,170
Retail Stores – Miscellaneous	12,000
Hotels and motels	10,046

*Sectors benefiting from outdoor recreation are top elements of our county economy, but not experiencing growth



*Olympia is one of the worst performing tourism economies in the Pacific Northwest; despite having a strong winter season (legisulature/colleges)

City Level

Tourism Promotion and Economic Development



Olympia: Perfect Location to Capture Tourism



TABLE 60 -

Scoring of Corridors in the Cascadia Megaregion

Origin	Destinations	Length	Score	Total Employment Within 2 Miles of Major Hodes	Total Population within 25 Niles of Najor Ilodes	Cumulative Júr Market*	Total Transit Acces- sible Population in Najor Ilodes
Portland OR	Seattle WX	185	17.37	379,000	5,600,000	470,000	670,000
Eugene OR	PortlandOR	124	15.42	190,000	2,900,000	60,000	500,000
Eugene OR	Bellingham Wit	403	13.71	445,000	6,900,000	690,000	670,000
Seattle Wil	Spokane Will	328	10.00	284,000	3,200,000	530,000	170,000

"Includes annual Hights among all a irports along the corridor. :

Olympia Underperforming: Northwest Tourism & Travel Spending

Estimated Total Visitor Spending (Gross)



Estimated Per Capita Visitor (relative to destination population)



Values of Olympia Residents Strongly Stated in a Survey



- Doing what is best for water quality, fish, and wildlife
- Keeping the cost to the taxpayers as low as possible
- Maintaining the look of the lake
- None
- Don't Know
- No Answer

Olympia	Stormwater
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TOPLINE DATA

7. You may be aware that studies are underway about the future of Capitol Lake and Budd Inlet. How important are the following factors to you in determining the future of Capital Lake? What about [READ A - C: ROTATE]? Would you say that should be: extremely important, somewhat important, or not at all important when determining the future of Capitol Lake?

EXT SW NOT NO OPIN

1.	Keeping the cost to the taxpayer as	low as possible	. 44	41 1	60	
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- 8. Which of these do you think is the most important? RE-READ IF NECESSARY.

Doing what is best for water quality, fish and wildlife...70

Keeping the cost to the taxpayer as low as possible ...15

maintaining the look of the lake...11

NONE...1

[DON'T KNOW ... 2]

[NO ANSWER...1]

05/14/09



*Urban estuaries exist all over the world; but estuaries so proximal to downtown areas are rare; uniqueness is an important aspect of attracting visitors from afar

Global Scale

Looking for Comparables and Considering Design



An Estuarine City

- A Capitol Estuary would be unique in the world and the country
- Imagining the Future by looking back and around
- A Model for Rivers, Estuaries, and City Tourism: Charleston, SC

What would the estuary look like?



figure 2

DEFS Status Report Conceptual Vision of the Restored Deschutes Estuary at Low Tide









Charleston, SC

- Population 120,000
 (=Olympia+Tumwater+Lacey)
- Tourism Economy = \$3 billion
- (14x Olympia Area)











Are dam removals and restoration common?



PSNERP Candidate Restoration Actions



Puget Sound Nearshore Ecosystem Restoration Projects