

Running your own business



The *Lone GIS Professional*
Initiative

Goals for this session

- Assist those already in business on their own or in small groups
 - Help those trying to establish the feasibility of working for themselves
 - Provide examples that audience members can connect with or relate to in terms of personality, traits and capabilities
-
- One of the top concerns we hear: how to get business



Who we are



David Howes, LLC
Professional Geographic Information
Systems Development Services



Karsten Vennemann



TERRA GIS

TERRESTRIAL ENVIRONMENT REGIONAL ANALYSIS



Matt Stevenson



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Starting and sustaining a business



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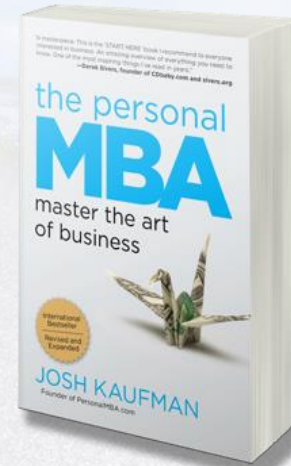
Business development resources

- ★ **Greater Seattle SCORE**
seattle.score.org



Greater Seattle

- ★ **The Personal MBA – Josh Kaufman**
personalmba.com



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What's our story?



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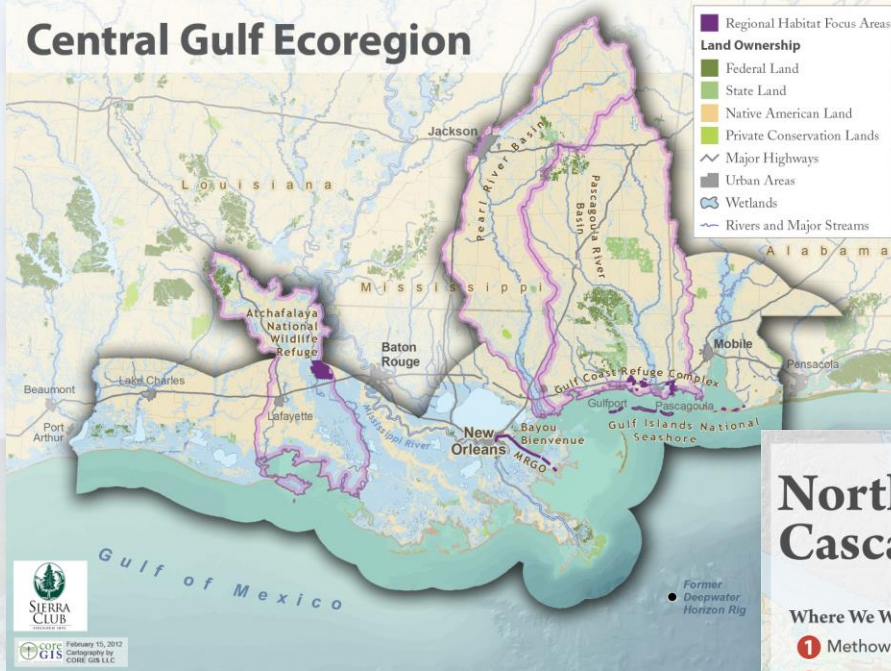
Matt Stevenson
Principal, CORE GIS

- **B. Sci. Public Planning, Master of Urban Planning**
- **Doing GIS professionally for 15 years**
- **Started CORE GIS in Seattle 6.5 years ago**
- **CORE GIS is an LLC, co-owned with my wife**
- **Focus:**
 - Work primarily with non-profits focused on land protection, species conservation, habitat restoration, social justice issues
 - Also work with governments and the occasional private sector client on natural resource issues
 - We do cartography, spatial analysis, data development/ image classification, and conservation planning
- **How I charge:**
 - Sliding scale for hourly rate (non-profit, government, private)
 - Hourly, but estimates are generated for full project cost



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Central Gulf Ecoregion



Cartography

North Cascades

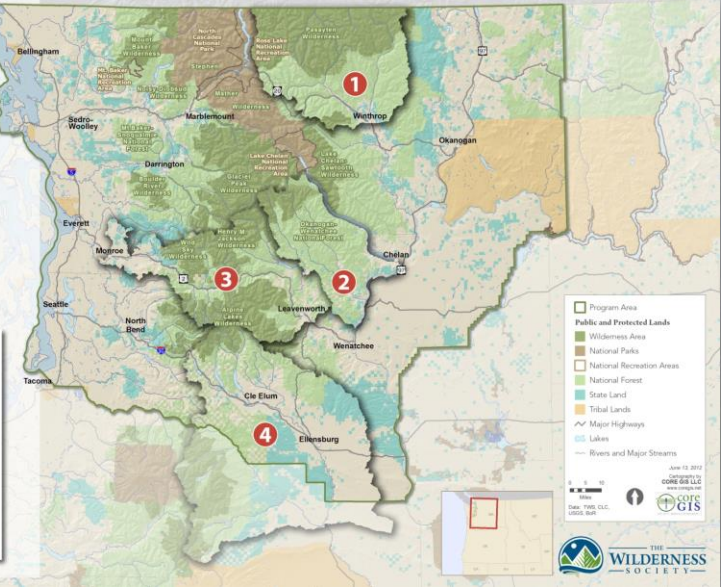
Where We Work

- 1 Methow Valley
- 2 Chelan-Entiat
- 3 Highway 2 Corridor
- 4 Yakima Basin

The Wilderness Society is working to protect pristine wilderness and world-class recreation opportunities of all kinds in the North Cascades. With another one million people expected to settle here in the next 20 years, communities will face new challenges to managing growth, creating thriving economies, and conserving valuable natural resources.

To meet these challenges and achieve our mission, The Wilderness Society's focus in the North Cascades is twofold:

- Protect wildlands through wilderness and other protective designations and by supporting land acquisition; and
- Preserve and enhance opportunities for responsible and reasonable recreation on our public lands.



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Olympic Peninsula Proposed Wilderness Analysis by County

CORE GIS 5/14/2012

Proposed and Potential Wilderness Acres by County

County	Proposed Wilderness
Clallam	34,178.58
Grays Harbor	25,657.13
Jefferson	35,802.10
Mason	31,137.40
Total	126,775.22

I a	LUA	Description	Total Acres	Clallam	Grays Harbor	Jefferson	Mason
i		AMA Outside Proposal Roadless	5,570	5,073	147	350	
ii		AMA Outside Proposal Non Roadless	119,022	54,992	27,258	14,786	21,986
iii		AMA Inside Proposal Roadless	4,657	1,929		2,708	20
iv		AMA Inside Proposal Non Roadless	474	439	19	0	16
v		LSR Outside Proposal (0-80 yrs) Roadless	2,959	1,847	389	318	405
vi		LSR Outside Proposal (0-80 yrs) Non Roadless	157,824	44,845	38,932	37,139	36,909
vii		LSR Inside Proposal (0-80 yrs) Roadless	10,215	1,791	231	4,525	3,669
viii		LSR Inside Proposal (0-80 yrs) Non Roadless	4,946	1,083	678	2,765	420
ix		LSR Outside Proposal (81 + yrs) Roadless	5,476	3,529	1,126	599	222
x		LSR Outside Proposal (81 + yrs) Non Roadless	127,342	40,635	33,942	30,689	22,076
xi		LSR Inside Proposal (81 + yrs) Roadless	62,748	17,102	14,695	11,008	19,943
xii		LSR Inside Proposal (81 + yrs) Non Roadless	42,617	11,655	10,029	13,993	6,940
			543,852	184,919	127,446	118,881	112,606

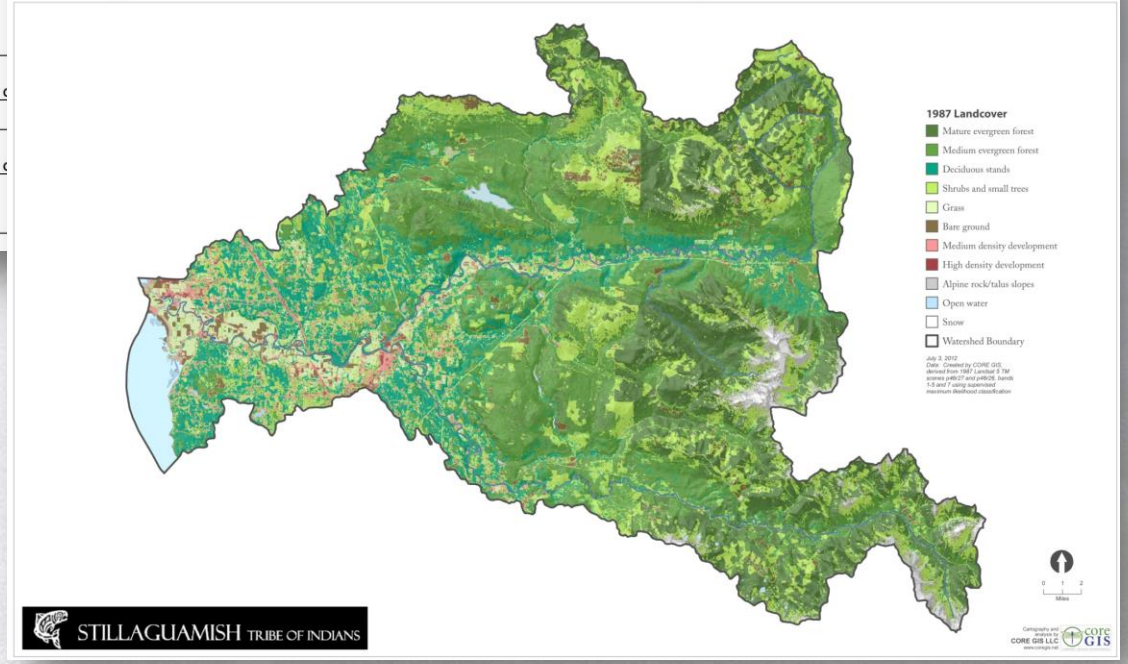
I b	Stand Age	AGECLASS	Total Acres	Clallam
i		Unknown	782	231
ii		0-20yrs	1424.887518	314.626224
iii		21-40yrs	3622.069603	842.953379
iv		41-60yrs	2409.656753	659.522174
v		61-80yrs	10028.87969	1686.282254
vi		81-160yrs	14023.16008	9098.597958
vii		over 160yrs	93958.97488	21229.19421
		TOTAL	126,250	34,063

I c	Roadless	Total Acres	Clallam
i	Roadless	77,885	20,861
ii	Non-roadless	48,365	13,202
		126,250	34,063

I d	Elevation	Total Acres	Clallam
i	0 - 1,000	11,285	5,742
ii	1,001 - 2,000	32,397	6,981
iii	2,001 - 3,000	40,164	11,824
iv	3,000+	42,435	9,532
		126,280	34,080

Spatial Analysis & Data Development

Stillaguamish Watershed Land Cover, 1987



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Karsten Vennemann



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Karsten Vennemann **TERRA GIS Ltd**

Education

- Geography Diplom (M.Sc.) 1995, Universität Stuttgart (Germany)
- Soil Science, M.Sc. 1997, UC Berkeley (USA)

Work Experience

- Working with GIS since 1998
- Variety of jobs in academic, commercial and non-profit sector
- Recycling, soil remediation, environmental assessment, CAD, customer support, research in soils, education & e-learning, and GIS

Founded **TERRA GIS (S-Corporation) in 2007**

How does TERRA GIS charge: hourly or fixed price

Goals and Focus: **GIS + ...**

- Natural resources management & environmental issues
- Public and social engagement issues
- Sustainable development



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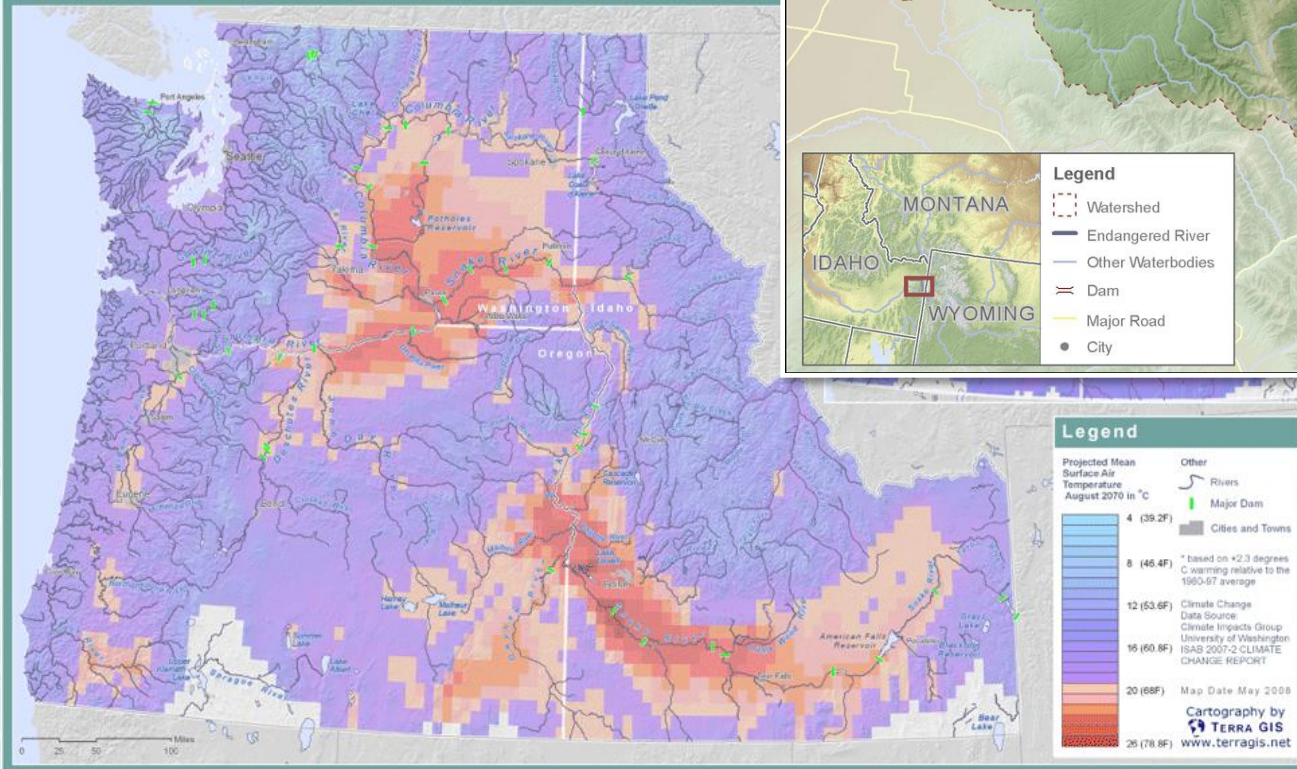


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Cartography

Spatial analysis

Climate Warming Scenario for the Pacific N
Projected August Mean Surface Temperature in 2070



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Open Source
web mapping and
information systems

support and
education (classes)

spatial tools

field 1	field 2	field 3	field 4	field 5	locations	Latitude	Longitude	County
2119 Boyer Ave E	Seattle	WA	98112		1	47.638323	-122.307900	King
211 21st Ave SW	Olympia	WA	98501		1	47.030035	-122.902085	Thurston



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Michèle Savelle



GIS

&
Graphic Design



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Michèle Savelle



- **BA in General Art, UW**
- **BFA in Painting, UW**
- **Certificate in Computer Graphics, UW**
- **Graphic design training at School of Visual Concepts, Seattle**
- **25 years in graphic design and fine arts (*glass, mostly*)**
- **Applied Science Degree in GIS, Green River CC, 2006**
- **Business started in 2008 (*sole proprietorship*)**
 - How I charge: hourly / not-to-exceed price most of the time, but by client's budget under duress
 - Focus: small clients with social, educational or environmental mission

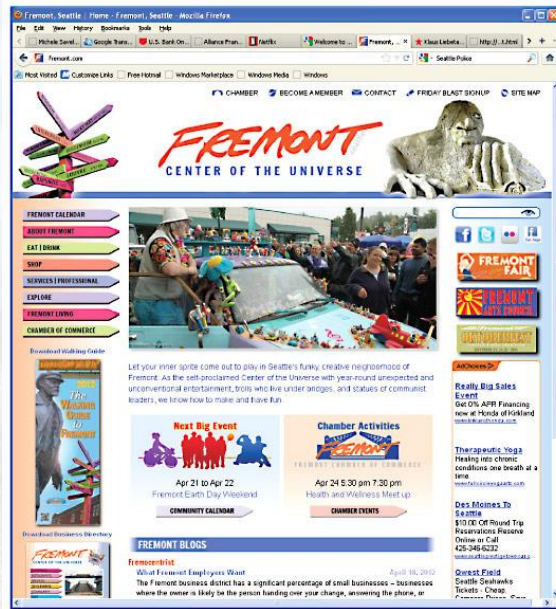


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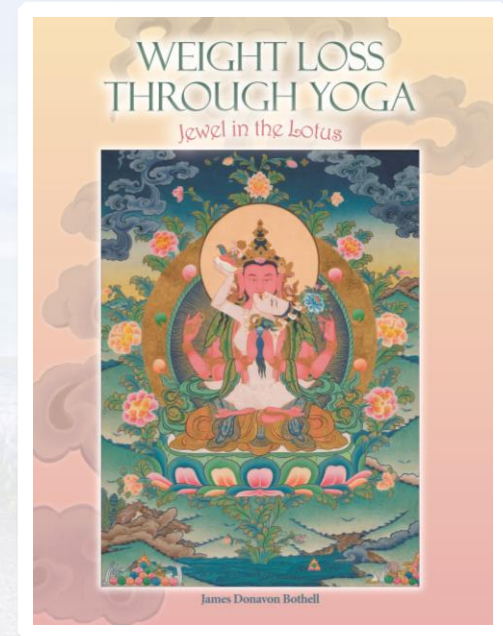
Graphic design work



Print



Web



Books

Consulting



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Michèle Savelle

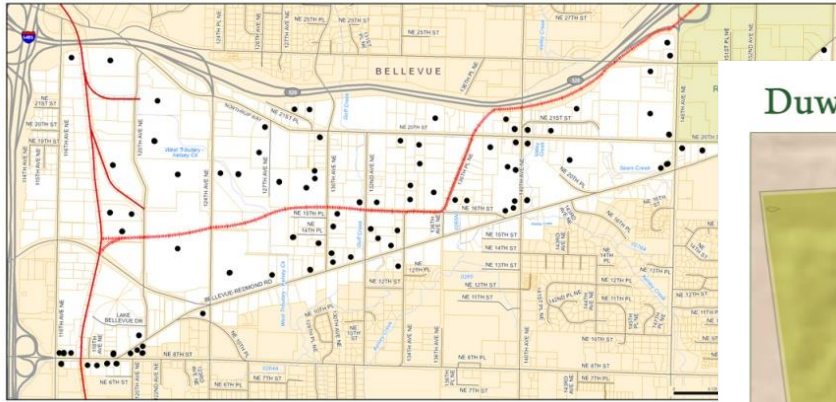


GIS

& Graphic Design

Maps

Distribution of potentially contaminated sites in the Bellevue-Redmond corridor



Brownfield inventory map



Green-Duamish River map
("Peoples' Choice Award" WA URISA Conference 2009)

Restoration site map

Duwamish Hill Preserve



The **Lone GIS Professional Initiative**

Michèle Savelle





David Howes, LLC

Professional Geographic Information Systems
Development Services



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Background

- **Education**
 - B.Sc. (Hons) in Geography – University of Salford, England
 - M.Sc. in Geographic Information Systems – University of Edinburgh, Scotland
 - Ph.D. in Geomorphology – State University of New York at Buffalo, New York
- **21 years in GIS**
- **Set up David Howes, LLC in 2012 – billing hourly**
- **Focus: desktop and web GIS development, spatial analysis**
- **Goals:**
 - Work with great people
 - Develop useful products



Exciting code...

The screenshot shows the 'Map Series Development Tools' application window. It is divided into several sections:

- Setup:** Includes a 'Setup file path' field with a file explorer icon and a 'Select' button. Below it are 'Setup values' with a list of map document, geodatabase, index layer, and land cover route layer settings, and an 'Update' button.
- Element Definition:** Contains controls for 'Map' (left and right arrows, 'Update index only' checkbox, 'Current index' dropdown, 'Update Extent', and 'Set Map Index' buttons), 'Databand type' (dropdown, 'Apply to all' checkbox, 'Build', 'Load', and 'Delete' buttons), 'Adjust label position' (radio buttons, 'Get Element' button, 'Selected element name' text, and 'Update' button), and 'Element definition' (radio buttons, 'Clear', 'Save', 'Dynamic text' dropdown, 'Update', 'Set', and 'Reset' buttons).
- Map Export:** Features 'Start index' and 'End index' dropdowns, 'Set Current Map' button, 'Output type' dropdown, 'Resolution' field, 'Overwrite existing file' checkbox, 'Load data bands?' checkbox, 'Export Map(s)' button, and 'Reset' button.
- Messages:** Includes 'Show Info', 'Clear Messages', and 'Reset Form' buttons.

```
//Get route file geodatabase path
string routeFileGDBPath = layerUtils.GetPathForFeatureLayer(routeFeatureLayer);
if (libContext.MessageHandler.StopForMessage())
{
    throw new System.InvalidOperationException();
}

//Get route feature class name
string routeFeatureClassName = layerUtils.GetFeatureClassNameForFeatureLayer(routeFeatureLayer);
if (libContext.MessageHandler.StopForMessage())
{
    throw new System.InvalidOperationException();
}

//Get route feature class
RMTools.Utills.FileGDB fileGDBUtils = new RMTools.Utills.FileGDB();
IFeatureClass routeFeatureClass = fileGDBUtils.OpenFeatureClass(routeFileGDBPath, routeFeatureClassName);
fileGDBUtils = null;

IQueryFilter queryFilter = new QueryFilterClass();
string whereClause = "PageNumber = " + IndexSeqID;

if (DataBandDetails.GeometryType == DataBandGeometryType.Point)
{
    whereClause += " AND GroupID = " + IndexGroupID + "";
}

queryFilter.WhereClause = whereClause;

//Add route features to sorted dictionary using FMEAS value as key
routeFeatures = new SortedDictionary<double, IFeature>();

IFeatureCursor routeFeatureCursor = routeFeatureClass.Search(queryFilter, false);
IFeature routeFeature = null;
int fMeasFieldIndex = routeFeatureClass.FindField(DataBandDetails.FromMeasureFieldName);

while ((routeFeature = routeFeatureCursor.NextFeature()) != null)
{
    int objectID = Convert.ToInt32(routeFeature.get_Value(0));
    double fMeas = Convert.ToDouble(routeFeature.get_Value(fMeasFieldIndex));

    //DEV - shouldn't be duplicate measure values
    if (routeFeatures.ContainsKey(fMeas))
    {
        continue;
    }

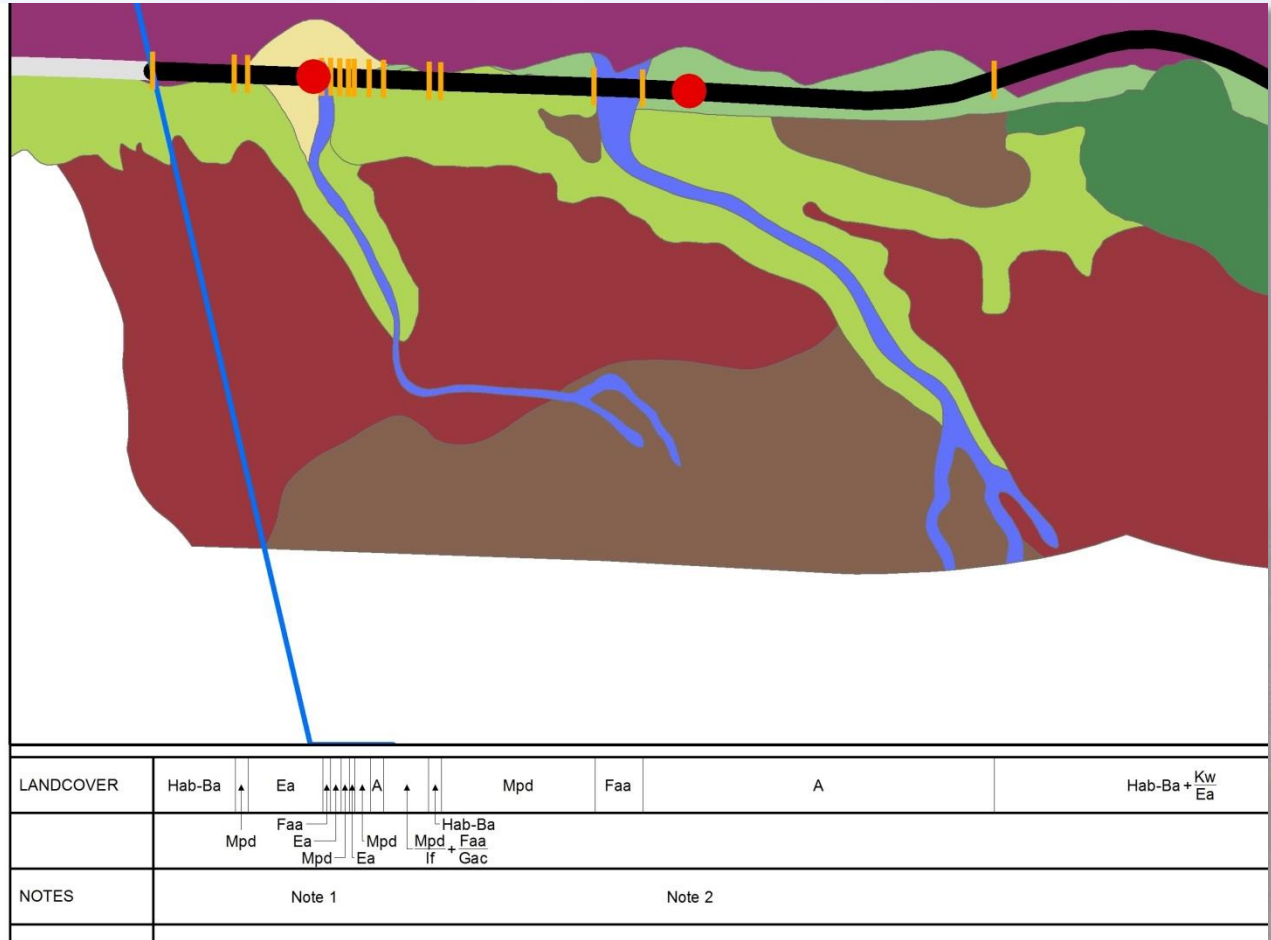
    routeFeatures.Add(fMeas, routeFeature);
}
}
catch (Exception exception)
```



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...produces
this!



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How do we develop our business?



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CORE GIS – developing the business

- **How do I get work?**

- Most business comes from existing clients (approximately 75%)
- Most new business comes from referrals and existing relationships (about 20%)
- The remainder, only about 5%, comes from other sources:
 - King County SCS
 - Google
 - Conferences, other networking

- **How do I complete work?**

- The key is staying focused--continuous partial attention is the enemy! (FREEDOM), tracking workload



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David Howes, LLC – developing business

- **How do I get work?**

- Direct contracts from referrals, cold calls, events
- Follow-on projects (be valuable to clients in many different ways)
- Alliances with other companies (e.g., Ascent GIS, Spokane, WA)

- **How do I complete work?**

- Work at home – may not see clients in person for many years, if at all
- Keep logistics as simple as possible (laptop & peripherals)



Karsten Vennemann TERRA GIS Ltd

How I get work Motto: *be active, be visible*

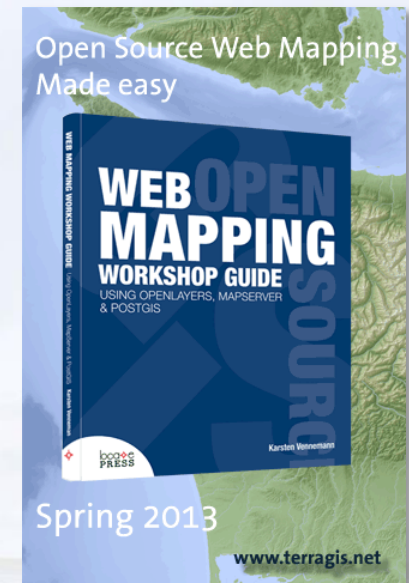
1. Networking at conferences, user group meetings, teaching classes, mailing lists, publications ⇒
2. Business partners and referrals (e.g. class participants)
3. Follow up contracts (existing clients)
4. Bid solicitations, colleagues
5. *Random* calls (websites & listings – web searches)

What did *not* work (for me yet) ?

- Sign 10K \$ contract right at conference
- Cold calls/emails, business event networking, win RFP

How I (complete) work office at home (> 6 years), co-working office once a week

- Desktop with two screens, ArcView License
- many remote clients & international work, contact via phone, email, web session, e.g. web based projects – work remote on server via web (open source)
- Rarely work “on site”, except classes & workshops



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Michèle Savelle – Developing business

- **How do I get work?**

- Networking events, visibility
- Start with a small volunteer project to build relationship
- Referrals

- **How do I complete work?**

- Work at home, use Skype and attend meetings at project start
- Strong custom-built PC can run graphics and GIS software at once
- Proofing happens via digital tools – streamlined process



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Michèle Savelle



GIS

&
Graphic Design

What challenges us?



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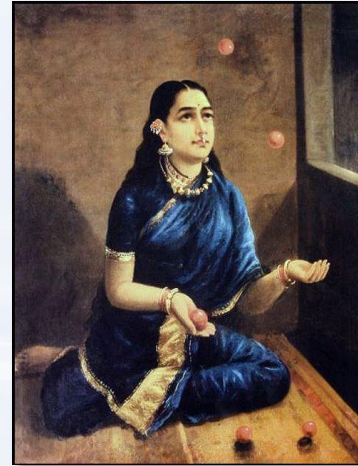
Michèle Savelle – challenges

- **Juggling obligations**

- Family
- Household
- Business

- **Money is sometimes short**

- Clients want work “right away”, but they don’t pay for 30-60-90 days
- Bills come with annoying regularity



CORE GIS – challenges

- Biggest challenge is balancing work over the course of the year— knowing when to say ‘yes’, ‘no’, or ‘in 2 months’
- Secondary challenge is having to do **everything**—not just doing the work and staying current on GIS, but also IT, admin, invoicing, marketing, etc.



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David Howes, LLC - challenges

- **Developing estimates**

- The better your relationship with a client, the easier it is to resolve contractual issues
- Always be honest and transparent

- **Isolation**

Working for yourself can be a lonely existence, but phone calls and external breaks help you overcome that



Karsten Vennemann **TERRA GIS Ltd**

What challenges me ?

- Doing all (most) work myself – including aspects I am not the best at ..
- Staying focused on my project tasks all day (alone) in the home office
- Finding time for learning / ongoing education for myself outside of paid work
- Finding subcontractors that are reliable, have the right skills , and are available (timing)
- Juggling family time and work



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What are the benefits?



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Karsten Vennemann TERRA GIS Ltd

What are the benefits?

- Can work on
 - contracts, topics and subjects that I like and have great passion for
 - tasks & projects I think give my work life a purpose
- Can say No (will not work e.g. for NRA)
- Flexibility
 - time with my sons & wife at home
 - location - can work abroad for extended periods
- No management that could tell you: **No, you can't go to WAURISA**
- Each single year took 6-week vacation



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CORE GIS - benefits

- Biggest benefit is having time with my kids and a totally flexible schedule that lets me set priorities
- Very close second is being able to work on projects that I believe in, to feel like I'm making a difference



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Michèle Savelle – benefits

- **I am the ruler of my universe, or so it seems**
 - Scheduling everything is on my terms
 - No task-master other than myself (she can be very demanding)
- **Sense of independence, authenticity, integrity**
 - I don't do retail!
 - I may not be rich, but I know my projects have meaning
 - I won't work for the NRA either



David Howes, LLC - Benefits

- **Work with great people**
 - Extremely important
 - Work is much more enjoyable when you're helping people you like and who like you
- **Isolation**
 - No office politics to worry about



Questions / comments?



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What's left?



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Matt Stevenson – in closing

- Working for yourself is hard, but totally worth it
- If you are doing something you truly believe in, you will be surprised how easily you can conquer seemingly insurmountable challenges



Michèle Savelle – takeaway

- **At the beginning, it helps to have support**
 - Partner who has a job or other source of money
 - Part-time job to cover the bills
- **It doesn't take a lot of clients to make a go of it**
 - Unless you want to be a big company (with lots of overhead), it only takes a few loyal clients to keep the lights on
 - Happy clients will come back, and back, and back...



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Michèle Savelle



GIS

&
Graphic Design

Karsten Vennemann – closing remarks

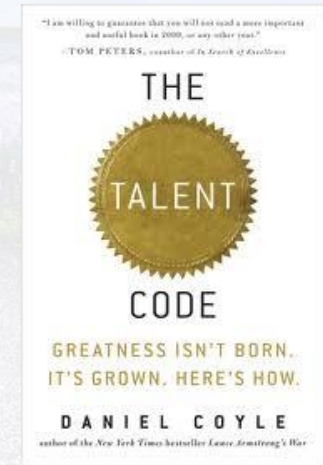
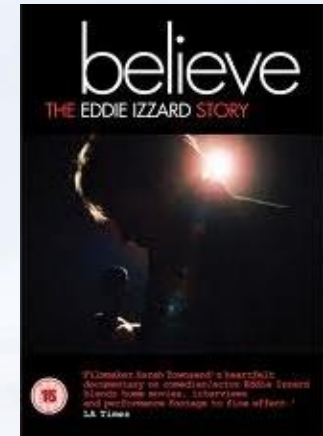
So if you are wondering if you should branch out on your own...

Skill(s) is one thing to consider but

- Listen to your inner voice
- Are you self directed & motivated?
- Do you not shy away from learning new things?



David Howes, LLC – closing remarks



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David Howes, LLC
Professional Geographic Information
Systems Development Services

Thank you for coming!

Please join us during the Tuesday evening social at Big E Ales, 6:30-8:30 pm
(look for our table)



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