About Proposals:
Deep Strategy and Tactics
or, brilliance is not enough!

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Why are you here?

• To learn how to get someone else to pay you to go play in your favorite sandbox….

• – and praise you for doing so.

  Keep Your Eye On The Goal - **KYEOTG**
  Lots of competition out there

Always remember –

**Agencies don’t “do” anything**

People do! And, the PM is the kingpin.
Universality of principles

These ideas are fundamental to all proposal writing, regardless of

Proposer’s identity
Proposer’s specialty
Source of money
Topic
(i.e., the $f=ma; \ c; \ g; \ \hbar$ of proposals!)
MAJOR POINT

REGARDLESS OF WHAT PR FLACKS, BROCHURES, WEBSITES, AND INSTRUCTION MANUALS SAY…

END TO END,
THE PROPOSAL PROCESS
IS A HUMAN ENTERPRISE.
No part of it is “objective”.
If you don’t believe that, and don’t act accordingly, you will fail.
Another point:

Why present lots of examples from science proposals?
(Isn’t a lot of it going to be superfluous or not germane?)

**BECAUSE**

The “science” proposal process includes ALL aspects of the overall process. You will (sooner, not later) need the apparently ‘non-germane’ information. Believe me! You will NOT write just one proposal, to a WA-State agency.
The Proposal Core

1) Define the problem
2) Tell who cares and why
3) Tell what you will do about it
4) Ask for the resources (aka budget)

All else is commentary.
What will we cover?

[Goals #1]

Role of program (or contract) managers
Gaining advantages
Dealing with reviewers
How the selection process **REALLY** works
Proposal planning and structuring
Handling various mandatory bits and pieces

(then)

The actual writing (process, technique)
Handling both success & failure
Audience Rule #1
ASK your QUESTION - NOW!
because
Silent audiences seem suspicious and make me nervous!
and
There is no dumb question!

My teaching style?
Recursive w/ dash of chaos
Jargon Alert!

Rule #1 – ESCHEW JARGON
Rule #2 – ESCHEW SURPLUS USAGE
Translation – Don’t use big words when little words will do!

MEA CULPA!

Funding jargon e.g., PM, RFP, PI, etc. will occur in my talk…so stop me and ask!
The right approach

Work hard, submit a few gems!

Consider reputation, reception next time

Concept – “career-long reviewer swarm”

Proposals are MUCH harder than publications (reports, analyses, etc.)!

• You are asking the recipient to spend their MONEY on you instead of on someone else!
• They are SALES JOBS, not intellectual arguments and discussions, and NOT technical papers!
REMEMBER! – Proposals...

• Are sales jobs...
  • Nothing more
  • Nothing less
Another of today’s goals

Provide a REALITY CHECK –

WHAT ACTUALLY GETS FUNDED?

and WHY?

How to improve your chances greatly

Some mechanical details (wherein lie Devils….)
You say you have a Truly Brilliant Idea?
(Oh, wow!)

• Brilliance is insufficient.
• Brilliance is a dime a dozen.
• Everyone is brilliant on occasion. Many of us dozens of times per week.
• Brilliance is a given.
• Your competition is equally brilliant!

• So – how do you enhance your chances?
Big question = What sells?

• NOT intellectual brilliance…. (though it helps!)

ONLY

• Ideas that solve problems
• For people who have money…..

• People such as……. (care to guess?)
Large-scale thoughts-1: Proposals mean teams -

Usually you need a group of people.

- But “Group” ≠ “TEAM” (group = herd)
- You need a TEAM (it better be GOOD!).
- Real teams take time and effort to build.

Best not done ad-hoc chasing $$
(easy to spot, lousy strategy, ~0 chance)
Large-scale thoughts-2: My point of view? The PM rules -

• The Program Manager (PM/CM) is God
  • “??” – “Why?” You ask, innocently……
  • Dreams up ideas, gets funds, writes RFPs, sets review criteria, selects reviewers, and has final choice – in EVERY funding situation.

• PMs ONLY fund proposals that solve the PM’s problems.
Aside on PM’s job...

PMs recommend – not approve
PM’s boss can say NAY (seldom happens)
  (but there are ways around this…)
Neither PM nor his/her boss can commit $
  (i.e., sign a contract re grant w/ your institution)
ONLY contracting officers can ACTUALLY commit $
Raising the odds?

• Go find out the PM’s problems.
• Propose your idea in a way that can solve one or more of those problems.
• Understand and woo (wow?) all your audiences, including the reviewers.
• AKA – Machiavelli is alive and well.
Best possible investment?

Visit the PM face-to-face
at least once a year

I don’t care WHERE you have to go.
   Find the money.
   Find the time.
While there:
   give seminars,
   meet people,
   make contacts,
   pick peoples’ brains.
The ‘really big’ proposal items

Defining problem and solution
Designing your approach (= today’s talk)
Building your team
Getting technical stuff written on time
Editing into “one author” coherence
Getting ancillary stuff ready on time
Logistics of final submission
Immutable laws of proposals

(PLAN ACCORDINGLY)

• Rule #1: Murphy is in charge – If anything can go wrong, it will.

• Corollary 1 – You’re wrong if you think it can’t go wrong!

• Corollary 2 – If all seems to be going well, you don’t have the whole picture.

• Rule #2: Simplest things are the most dangerous.

• Rule #3: Nobody EVER delivers a task on time…. hence (especially in academia)

• Rule #4: It will take FOUR times as long as you think.
Fundamental needs – any proposal

• Idea (clearly developed - ouch!)
• Local resources
• Leader
• Gantt chart
• Editor (often not the same person as the leader)
About that “IDEA” thing....

Before embarking, you must:

• A) Define your problem, and
• B) Propose a solution....
  • All else is commentary

With apologies to Rabbi Akiva ben Joseph, ~130 CE

(This is usually NOT easy!)

MANY proposals never define a problem!
IDEA development---
(Must DO BEFORE WRITING!)

- Is the most critical thing
- Takes lots of time (months? – years?)
- Major problem #1 is
  “SEPARATION BY A COMMON VOCABULARY”

This can take months to fix in a complex group ... lots of face-to-face, lots of drafts
Other major problems:

#2 - Lousy English

(This sentence no verb. They is. Oh, is they?)

(They no verb in this here sentence.)

#3 - Lousy presentation -

clarity, layout, sequence

#4 – Lousy structure –

especially wasting reviewers’ time
There are only 2 basic questions in all of science

• What is out there in nature?
• Why is it that way instead of some other?

Unfortunately -

• Proposals are more complex…….
The 3 Basic Proposal Questions

• 1) What is the problem?
• 2) Who cares and why?
• 3) What will you do about it?
  – You must……..

• Answer each in 2 sentences, each sentence <20 words, and NO JARGON!
• Until you do this, you DO NOT KNOW! And therefore you will fail.
About those 3 questions

You cannot write a good proposal until
• 1) Each member has answered them
• 2) The group has produced one final set
• 3) The group’s answers are written down
• 4) All members have initialed them!
Proposals are war

Rule #1 -

“Logistics wins wars” – DD Eisenhower (*****)

-- “C’ est vrai, mon frer!” – Napoleon B

Rule #2 -

Everything you do is SELLING.
Rules of War – the real biggie

Rule #3 -
You are selling other peoples’ success, NOT your big idea!

* The world is full of nifty ideas.
* Yours will win only if it makes other people look good.
* …People such as…. (bring in the chorus, please…..)
Developing every proposal has two major “logical chunks”

• Logistics –
  – Team building
  – Writing/editing
  – Assembly and submission

• Content -
  – Ideas (problem, solution)
  – Presentation (tactics and strategy)
These drive logistics (i.e., writing, assembly, submission)

- TIME
- TIME
- TIME

- Local procedures @ PI locus
  - Some processes seem designed as blockages

- Local resources
  - What people/resources are available to you for proposal preparation?

- TIME
- TIME
These drive content and presentation

• Most strongly - the RFP
• Then the program manager
• Then your audiences (plural!)
• Lastly – team talents
• NOT AT ALL – your personal taste

...............which leads to........
? Intellectual prostitution?

Well, sort of –
Your job pre-writing----

Figure out how to sell (aka package) your latest pet brilliant idea in terms that will address one or more of the PM’s problems.
(I really don’t care if you do not personally like the Defense Department – if you want their money, you must solve a problem for their PM!)
THEREFORE

• Your job begins thus –
  1- **Identify** the PM’s problems.
  2- Dream up something to **fix one** of them (preferably at least loosely based on something you’d like to study or accomplish)
  3- **Before** writing a proposal!
• BUT – do it **intentionally**, dammit…
  – **Not by dumb luck!**
Identifying the PM’s problems?
(OhMyGawd –
he’s going to tell me to TALK to Dr. Little McTinGod!)

- Ask them. (PMs seldom bite!)*
- Be a little bit subtle.
- **DO NOT** try to sell an idea!
- Go into battle fore-armed………
  
  - *(a few, however, do….*)
PM’s problems……?

• PM’s must please their BOSS
  – (does this sound familiar?)

• i.e., you must make the PM’s boss look good to his/her own (2nd level) boss.
  
  * Where’d the program’s money come from?
  * What did the PM promise to do with it?
  * What did the PM’s boss promise and to whom?

BLUNTLY - Your job is to help the PM look good to the boss – so Boss^2 can look good, too! (PM’s success = boss’s success)
PM problems.... generic

- Trying to build a coherent program
- Gets bricks (= proposals) at random times
- In random shapes
- In random sequence
- With no cross-linkages

- It ain’t easy, folks!
  “Why?” you ask, perplexed.....

What the PM promised her boss
What the community provided
Every PM’s generic problems, re-stated for the record

• Trying to build a coherent, integrated program
• Gets bricks (proposals) at random times
• In random shapes
• In random sequence
• With no cross-linkages

• It ain’t easy…… SO…. take advantage of the PM’s woes!
Subtler PM problems…

Boredom (possibly)
Loneliness (likely)
Watching instead of doing (for sure)
Hyper-busy (you can help if you understand)
Need continual updates from the field
NEED GOOD PROPOSALS!
Machiavelli calling

- **Call** (make an appt), and ask the PM

(1) What are your goals for the program?

(2) What is missing?

(3) What are the two most common causes for proposals failing?

(4) (not-so-minor) – What other PMs should I talk to?
Why do you suggest them?
Another ‘apparently science-proposal-only’ slide coming…. Watch out!
Actually…..
Think outside your box… translate the next slide to apply in your own immediate situation!
Another aside – about keeping PMs informed:
(aka yet another PM generic problem!)

* Semi-final drafts of articles
* White papers:
  What are they?
  Information, not sales jobs!
  Unbiased by your career POV

Why prepare them?
Help for PM
Basis for future RFPs (?)
Selling? ICK!

• Given problem, solution, PM, reviewers –
• Design the presentation to please THEM, not you! **Squash your ego**! Packaging is veneer- who cares? Do what will please this particular customer. Paint it differently for Joe than for Mary.
• Fail, and it will not sell. (Mary hates RED!)
• Do you care, if you get money to go play?
Major steps (1) – any proposal

Define the problem and your solution – no jargon
(Please, PLEASE, please DO THIS FIRST!)

THEN - find a potential funder
Read & outline the RFP (thoroughly, patiently, closely)
Do your agency-homework (talk to the PM)
Identify your audiences (PLURAL) –
study them carefully

Choose your tactics –
The best approach may not please YOU
personally – but you don’t care! - KYEOTB
Aside - critical philosophy:

Always build a dream team!
Ignore ALL boundaries.

----- “But WHY?”
“---Won’t that PO my own institution?”
“OK, HOW!?"
Major steps (2) – any proposal

Choose the slave-driver (AKA “The Enforcer”) – an outsider is best!
Do the GANTT chart (carefully) – overestimate the time needed
Get local logistical support for the proposal effort
Write – help the reviewer in every way
Get ancillary stuff started early (letters, assessment, outreach, CVs, $$, matching, politics, partners, etc)
Get independent preliminary critical review – Don’t argue, just FIX IT!
Edit – you need a good editor!
Assemble & ship the final document.
Another diversion

More about program managers

They:

- are in charge!
- fight for the money for their program
- write the RFPs,
- select YOUR reviewers,
- **manage the GREAT GRAY AREA**, solve problems (theirs = yours!), and
- have needs, goals, bosses, feelings, duties.

These are all points of leverage and concern.
The “Great Gray Area”? Whazzat?

Hang on, we’ll get there…....
For you UNBELIEVERS…

Are PMs REALLY, TRULY in charge?

**Current NOAA RFP** - review panel will rank all proposals. PM will select in rank order…. BUT exceptions may be made for these considerations…

1. Availability of $$
2. Balancing distribution of $$ (geography, type of institution, type of partners, research areas, project types)
3. Duplication of funded or considered projects
4. Program priorities and policy factors
5. Applicant’s performance on prior awards
6. Partnerships &/or participation of targeted groups
7. Adequacy of information presented, to meeting NOAA’s internal needs

8. **And oh, by the way** – “…Applicants may be asked to modify objectives, plans, time lines, budgets…. and to provide more information…”
Hey!

Exactly WHAT, do you think, is every PM’s primary task?

(“Select only the very best proposals; brilliance and Nobel-potential uber alles!”) – right?
NOPE! The PM’s job -

• **Task #0** = look good to the boss

• **Task #1** = discard as many proposals as possible, as fast as possible, using whatever rationale is available! (Yes, really!)

  Example- medical proposal rejected w/o review for $1k overage in $15M budget

• **Task #2** = invest resources (including $) to meet stated program goals

  (KYEOTB - Your job? Help the PM make the boss look good!)
Review of “What sells?”

- **NOT** intellectual brilliance….

  **ONLY**

- Ideas that **solve problems**
- For people who have money…..

  - People such as……. (cue the chorus…)
Proposal review & evaluation

*There is ALWAYS a review process.
*Sometimes is has multi-steps or levels.
*It is usually described in the RFP.
*Actuality NEVER meets the description.

Never never never never never never never never never....
Etc.
Career Reviewer Swarm

(Personal, Team, Institution…..)

OhMiGawd, I never thought of THAT!
Goal?
Mini-Machis!!

Aka turn you all into mini-Machiavellis!

By knowing how the system ACTUALLY works, you can gerrymander it! Instead of fumbling blindly in the dark.
The Brilliance Problem

- 100 proposals went to market
  - 4 got five “rave reviews” each
    They will all get funded*

That left 96

PM has funds for 10: (10-4=6 left to go)
(Agency X is having a good year…)

*PMs are not stupid!
On brilliance, again

• 41/96 were judged “TC” by N>=1 reviewer.
• That left 55 in the race.
• 30/55 got 2 or 3 reviews like this:
  • “Cool idea, PI seems sane and otherwise qualified, fund it if there’s enough money!”
• PM now has 30 from which to choose, all (functionally) with the same reviews.
On brilliance, still more

- YOU are now the PM
- YOU have problems
- YOU have a choice.....
- Which 6 of the 30 “**OK to fund-its**” will make this major cut?

  If this disappoints or offends....
  Well, sorry ‘bout that, but

  Reality is often a wet fish across the chops.
The “Great Gray Area”?  

It’s......

those thirty evenly-ranked proposals!
• PMs have problems!
• PMs are SWAMPED with brilliant ideas (aka places to spend money)
• PMs have a huge suite of proposals to choose from – ALWAYS!
• Which will they select?
• (Those that solve the PM’s problems?)
  • (Duh!)
Back to proposals generally - Who wins and why?

- Winners do **WELL** in all areas.
- Winners do **GREAT** in several areas.
- Winners solve PM’s problems.

Reality check -

- One clinker will kill your proposal.
- Not ‘maybe” – guaranteed!
- Not once in a while – every time! (why?)
  » (Doh….. Competition perhaps?)
Preparing proposals: overview
(Eric’s 12–step program for proposals)

Objective = get funded; produce a few gems, not lots of trash
  Agencies do not act – people do
  PM is in charge (yes, they really are!)

0- Do your homework
1- Study the RFP thoroughly
2- Identify your audiences
3- Choose tactics and approach
4- Build your team
5- Develop battle plan and time line - the Gantt chart
6- Write – make the reviewer’s job easy! (Most people start here, w/o the “easy”)
7- Edit
8- Get independent preliminary review AND FIX THE PROBLEMS!
9- Assemble
10- Ship it
11- Celebrate
Step #0a - Homework

• Your homework #1 –
  research the PM
  research the agency
  research the program

• Your homework #2 – Call the PM to chat

**NO SELLING** — You are on deep background! What did they promise; to whom? Where is the money from (zero sum game)? What is the PM trying to do? What is missing from current program? How do people most commonly fail? Is this special $$ ? Who invented it, why, who lost (they will run it!).
Step #0b - Homework

• Websites (PM, program, agency)
• Formal program publications (e.g. annual reports)
• *Your friends don’t know, and probably have it wrong if they think they do!*
• Mission statements & RFPs are the best clues – they are public documents.
• …..Next to phone calls to the PM
Step #1a – Study the RFP

(=BAA-RFP-RFA-AO, etc)

RFP! Most proposers do not study the RFP. They fail in predictable ways as a result. Read the RFP. Then read it again. And again. Do not scan it. Read slowly, carefully, and in depth. ALL THE WAY THROUGH (all the waste, too!). Re-read it. It is the roadmap to success. Make NO assumptions. Underline every active verb. Outline the stated goals, and seek unstated goals behind them. Where did the money come from? Who is managing it (at several levels), and what are their goals, needs, hopes? If in doubt or confused, CALL the PM.
Step #1b - RFP, revisited

At least 2 independent analyses!
Read and re-read, slowly – ALL of it – 3 times (ALL means ALL)
Read carefully, analytically. Mark it up, highlight, underline action verbs.
  Key words – must, shall, will, ought
Get every detail down on paper, in sequence!
  (somebody better notice the pagination requirement before you print the thing!)

NOW interpret. Discuss with your team.
  What’s between the lines? Jargon alerts? Code words?

Use the RFP as your proposal outline and writing guide.
  WHY? So will the PM and reviewers!
  You get BIG NEGATIVE POINTS for artistic license!

IGERT as example –
  PhD education, not science
Step #1c – The PRECIS 1/2

- IGERT PREPROPOSAL OUTLINE
- FROM NSF RFP FOR 2005 (#05517)
- 11 page limit, all-inclusive (1” margins, “user-friendly” type), for these items in this order:
  - (A) Project Summary (1 page max, part of the 11) – research theme, key education and training features, for a general nontechnical audience. Required – statement of intellectual merit, broader impacts.
  - (B) Table of contents = doesn’t count in pages, is generated by FastLane itself
  - (C) Project description - 9 pages max (including tables graphs etc) for items 1-7, is part of the 11
    - C.1 – List of participants (1 page max) w/affiliations
    - C.2.1 –Vision
    - C.2.2 – Goals
    - C.2.3 – Thematic basis
      - Include – anticipated impacts
        - unifying aspects of research and educational activities to be offered
        - what is missing from PhD education?
        - How we will address that lack
    - VALUE ADDED ASPECTS
      - Specify the new and innovative features clearly
      - Objectives, planned outcomes for
        - Recruitment
        - Retention
        - Degree conferral
        - Career placement
        - Monitoring guidelines
        - Measure of outcomes
  - RENEWALS – show clearly What is new and improved
    - Plans for evaluating project impact
    - Plans for disseminating results to professionals
    - Plans for post-NSF continuation
Step #1d – The PRECIS 2/2

- C.3 – Major research efforts – cutting edge aspects, how they interweave.
- Include here international efforts, how integrated with core research education and training activities of the IGERT
- C.4 – Education and training – mechanisms, logic for them, evidence to support them.
  - How integrated with the research and across disciplines.
- Be clear about novelty – what’s new and why?
  - Recruitment mentoring and retention plans,
  - personal and professional skill development plans,
  - fostering an international perspective
  - ability to work in diverse teams.
- Integrated ethics training.
- Benefits (to students) of planned international experiences?
- C.5 – Mgt, Assessment, Institutional commitment (1 page limit within the 9 pages)
  - EXTERNAL ASSESSMENT of effectiveness and impact on
    1) students, 2) faculty, 3) institution
  - Institutional commitment
  - How will we promote diversity – student & faculty (!)
  - Plans for working with UW’s existing recruitment etc programs
  - DETAIL INTERACTIONS PLANNED WITH OTHER IGERTS AT UW
- C.6 – Other resources and connections (1 page limit within the 9 pages)
  - Industry, other nations, NGOs, connections with other NSF programs
- C.7 – Recent traineeship experience & results from prior NSF $$$
  - (discuss here this IGERT’s first five years)... both OUTCOMES and VALUE-ADDED.
- D – Refs (one page max, not part of the count for C.1 – C.7 but is part of the 11)
- E – Biosketches (max N=20 – 2 pages each, emphasis on showing
  strengths,
  qualifications and
  specific impact that each person will bring to the IGERT
  (NOTE – current and pending support for PI and all co-PIs (ie max five people only)
NOW FOR SOMETHING GUARANTEED GERMANY!
2012 WA Stormwater RFP precis 1/5

- **FY 2012 Statewide stormwater grant program application**
- **Precis (draft) – by E. Shulenberger (Sept2012)**
- Instructions p1-2 – there are 2 parts – both required
- MATCHING IS REQUIRED (find out about this)
- PM contacts
- Tiebreaker questions exist (#3, 7)
- SUBMIT 1@w/original signature; 2@paper copies of #1; one CDROM of app in WORD format, w/all attachments as PDF
- Apps must be physically received at DoE Lacey nlt 1700 Fri **08Nov2011**
  *YES it says 2011! RFP*

- Instructions p 3-5 (no action – PM etc. contact info, addresses)
- The application itself
- P1 – five-word title
- P2 – your address etc
- P3 – Basic project info (who gets this stuff together?)
- P4 – list WQ needs addressed by this project (who decides?)
- Project duration (must finish by 30Jun2015)
- P5 – Basic project info (who gets this stuff?)
- Shovel-ready? Must provide complete plans! What does “complete” mean?
- “eligible” cost vs “complete” cost – what does eligible mean? Who finds out?
- P6 - **Critical – 50 words max for narrative description (to be published!)**
- Signature – who will sign the final copy? Where will they be when signature is needed?
  - **Here endeth part 1 of the two-part application**
Here beginneth part 2 of the two-part application (sections 0-8)

P7

(Only Part 2 is scored. Entire Part 2 has max 1000 total points, as laid out below)

NOTE – Overall in Part 2 there are 9 major items (exec sum) + #1-8: HOWEVER – confusingly – on P8 is a large box within which is a header reading “Task 1 – Project administration and management”, followed (in the box) by “Tasks 2-6” -of which #5&6 are just numbers, no headers. It is utterly unclear whether this box is intended to delineate required materials, or is a formatting suggestion, or what.

Must clarify this with the PM immediately.

(0 - unnumbered) EXEC SUMMARY <250 words ---- NOTE this is the ONLY place for you to strikingly differentiate your project from others’ projects. CRITICAL – great thought required.

MUST fill in “Project Analysis Form” at end of app.

MUST provide detailed scope of work

Clearly defined tasks

Deliverables

Timeline

Cost per task

1. Scope of work (250 pts)

P8

critical instruction top of page, bullet #1

Scope of work and project analysis form = the ONLY places you can describe the project – obviously they are CRITICAL. Must

Describe project area

Give supporting maps/diagrams/photos

CITE the stormwater manual you used
2012 WA Stormwater RFP precis 3/5

- **WITHIN THE P8 BOX ----**

  - "TASK 1" Project admin and management
    - List of management requirements (16 specific callouts!)
    - Recipients MUST “maintain effective comm.” (with about 10 specific groups)
    - “…with any interested groups” – what does this mean? .......

- **P9 -**
  - 2. Proposed budget (100 points)
    - scoring criteria – meet them all. What is “value analysis”?
    - Cost breakdown by task elements, with time to completion for each element
    - Budget note – no more than 25% of budget for salaries and benefits
  - **P10 -** MATCHING SOURCES, amounts, status of arrangements (documents?)
    - (Where are the match requirements stated???)
    - Cost estimates – how made, reliability, why believed to be reliable?
    - Cost control - how will costs be controlled?
    - Matching sources – identified

- **3. Severity of problem, stormwater quality, and hydrologic improvements (300 pts)**
  - Is stormwater PROBLEM well documented (what does this mean? Ask the PM!)
  - What does “substantial benefits” mean?: ditto “large portion of the watershed” and
    “significant amount of the stormwater problem” and “substantial benefits”?
  - **P11 -** Define “long term sustainability” of the WQ benefits (call the PM)
    - Define “substantial environmental improvements”
    - **Five specific callouts** for descriptions (severity of problem, expected results, what % of
      watershed is involved, how improvements will be sustained long-term, whether
      project meets Puget Sound Partnership action goals).

- **4. Project team (50 pts)**
  - **P12** Team members’ roles and responsibilities well defined. (DEFINE THE TEAM!)
    - Estimated % time on project for each team member
    - Team members’ past relevant experience – skills, experience, qualifications etc (BUT NOT as a
    CV… you will have to write a description – this will be a major selling point if done right,
    a killer if done poorly.
5. Project development process and local commitment (50 pts)
   *Describe your “comprehensive decision making process” (?? Does this mean public involvement, design sessions, what?) - documentation
   *Specify level of commitment from ‘project partners’ – you need a list and statements from them which will satisfy the reviewers and PM - documentation
   *Describe collaborative process for project implementation – documentation
   *describe decision making process used to select the project. Why this one chosen?
   *describe other projects or phases of a larger project in which this is embedded
   *explain the WQ priorities for the area
   *describe how you have fostered local, regional, statewide partnerships for success of this project
   *describe past performance and WQ outcomes, and how you will sustain long-term WQ efforts
   *describe past successes, including outcomes & performance (what does performance mean?)

6. Readiness to proceed (150 pts)
   Planning is complete, ready to proceed (documents required)
   SEPA done and documented
   Cultural resources (EO 05-05) complete and documented
   *describe why you are ready to proceed immediately- details (w/docs) on project elements - e.g., designs, permits, agreements and the like
   *describe environmental reviews to date

7. Early adopters of new regulations and technology (50 pts)
   (checklist for points)
8. Hardship (50 pts)
If requested, need documentation of median family income (unclear for what population or area)

Project Analysis Form – REQUIRED – many very specific callouts
Tech manager’s qualifications
- project description with topo and location maps, overlain with much detail
- characteristics of the stormwater
- est’d size of drainage area, with runoff details
- if project is a retrofit, more requirements apply
- were alternative projects evaluated, and if so why were they rejected?
- cost est for the project
- If an infiltration site, more data required
- checklist of important items.
Step #1e – the OUTLINE

SUMMARY (1 page)
C-Project Description (9 pages total for C)
C1-Participants
C2.1 – VISION
C2.2 – GOALS
C2.3 – Thematic basis (15 specific callouts!)
C3-Major research efforts (10 specific callouts!)
C4-Education and training (~25 specific callouts!)
C5-Management, assessment, institutional commitment (~20 specifics)
C6-Other resources and commitments
C7-Recent traineeship and experience (NSF$$ only)
D-References (1 page max)
E-Biosketches (size limit, structural specs, specific added stuff)

Why use this format?
Step #2 – Satisfy Your Audience

Hey! THIS IS CRITICAL! DO IT RIGHT!

Disparate groups w/different needs & values
Must satisfy ALL (= The Tightrope!)

- Kyeotb - Do it consciously, not accidentally

*Programmatic – PM, PM’s bosses (Program goals? Mission statements? Phone-calls?)

*Technical – Likely reviewers? What are their backgrounds? How do you treat them – educate the ignorant (usually the majority) without insulting the (occasional, random) knowledgeable person?
There exists only one known method of satisfying both major audiences with ONE piece of text ---

A brilliantly clear, very simple, absolutely accurate explanation of a problem will (a) impress and please the expert, while (b) educating and enthusing the others.

WRITING THUS IS AN ART FORM!
Step #3 – Tactics and approach

Your niftiest idea will not sell

unless it meets the audiences’ needs!

Any idea can be SOLD in many ways

Choose your approach carefully

Be Machiavellian but be sincere, too

(You’re a pacifist, DoD has money, you work on high-frequency acoustics, ANY such work can be sold to ONR…..) (AeroAstro example)

Meet the audiences’ needs up front –

Not your own!
Step #4a – Build the team

*Get a strong leader (delegate, select, enforce)
   Leader must LEAD (anathema at most universities)

*No clinkers – be strong! (can be hard to do)

*Independent analysis of team membership, talents –
   what’s missing, where to get it?

*Build dream-teams only – ignore all boundaries
   TimbukTu U, NatLabs, NGOs, Stakeholders, even other
   departments (God forbid?), industry, UN, France, Boy Scouts?

*Try to ignore internal politics (or use them!)

*How about co-funding by agencies? There’s a teaming strategy!
Step #4b - Team needs…

- Fearless Leader (not a democracy)
- Regular place & time to meet (!)
- Independent analysis of members’ talents
- Accept no clinkers (define)
- Absolute candor in camera
- Designated terrorist/enforcer from outside
- Designated final editor for overall product
- Firm assignment of tasks and timelines

INITIALED by everyone!
Step #5a – the Gantt chart

Must be a team effort – LIST…..
EVERY item (text, signatures, letters, etc)

for every participant –

(other ‘partner’ organizations are a pain, take time)

EVERY step
Entire time sequence (x before y before z)
LIST the KILLERS and their dates
Gantt – simple example
**GANTT - better example**

![Gantt Chart Image]

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start-Up Programming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Final</td>
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<td></td>
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</tr>
<tr>
<td>Development</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Construction</td>
<td></td>
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</tr>
</tbody>
</table>

*Ronald Reagan Washington National Airport*

TERMINAL A REHAB AND EXPANSION PROJECT
Preliminary Project Workplan - Design Phases

*Created Using Milestones Professional*

[www.KIDASA.com](http://www.KIDASA.com)
Step #5b - Why Gantt charts?

• Because you WILL forget something critical otherwise!!
  • (actually, you will anyhow…..!)

• Work backwards from the due date
  – (Eric’s thoughts about due dates!)

• Determine critical internal paths
• Every team member gets a copy
• So do critical people in the proposal’s internal path
Another “science proposal” slide looms....

Again, apply to your own situation. Who cares what field it comes from? The underlying principles are the same!
Step #5c - Critical internal path
(it’s YOUR JOB to know this cold!)

Institutional signatures & requirements:
Make a complete list
(harder than you think, never the same twice)
(Can you do this today, ad-lib, for a 3-PI, 2-Dept., 2-College proposal having one industrial and one university partner?)

Who signs in what sequence? (serial vs parallel?)
How much time needed for each? (Gantt it!)
What does each need to be happy?
Who is each signatory’s alternate?
Keep all updated with informal emails!
(Make them your co-conspirators.)
Re Institutional ‘grants staff’

• They KNOW what needs done, and when
• Their JOB is to help you (don’t argue!)
• Give them every break – INTERNAL requirements are usually EXTERNALLY driven…. Staff seldom make the rules!
• Make them into active team members
• Don’t get them POed – cooperate with and help them… there are rewards for that!
A jog through some of the “ancillary stuff” — (Step #5 goodies)
These take time and take away mightily from the fun of it all – BUT - do ANY ONE ITEM poorly, and you LOSE!

- Budgets
- Partners
- Supporting letters
- Curricula vitae
- Matching
- Subcontracts
- Assessment and evaluation

Stormwater???

- Intellectual property
- Outreach and education
- Recruitment & retention
Budget Basics

RULE #1

WRITE NO PROCRUSTEAN BUDGETS

(Explain to the unwashed what NOT to do!)
Budgets #1 (restated)

• Ask for what you really need to do a good job -

• Do not gold-plate the Cadillac
  » Bad faith
  » Transparent to all
Budgets #2

• 1) Prepare 2 fallback budgets in advance
• 2) Rank tasks by importance
• 3) Cut tasks and budget in parallel
• 4) Have a bottom line:
  – “For less than $N, we cannot do anything useful and therefore will withdraw.”
CVs-1 (à la Eric, please!)

SHORT
PERTINENT INFO, NOT EVERYTHING
NSF “standard 2page CV” is Rubbish!!!

Side-rules for academia – and most other groups
*Faculty are incapable of following directions, and will not produce what is needed, or on time… so,
**Start early, give this job to the dedicated secretarial help, and have them
***Eschew perfection, try for broad similarity
****Tailor to the task (medical ick!)
CVs -2

• One size does NOT fit all
• Rethink and rewrite every time
• Factor analyze your experience and training…
• NOT just a list of stuff (ick!)

• USE NARRATIVE — e.g., Shulenberger’s PhD and JD aren’t what he’s selling – he can really put together a team and get a complex task done! THAT’s his major talent.
• Then, after narrative, give a short, succinct listing of stuff!
Partners

• You may need partners for your dream team.... but
• Have as few as possible
• Have all that are necessary
• Invite them only after
  – Full “local” development of the idea
  – Discussion with ALL participants in the proposal (this includes your administration!)
• Get the arrangements in writing!
Partnerships?

Build for a CAREER, not one proposal.
Build long-term relationships with (inter alia)
* Program/Contract manager(s!)
* YOUR “reviewer swarm(s?)”
* Personal colleagues
* Within your institution – GCS/OSP etc.
Supporting letters

• Don’t waste these (no President’s fluff)
• Choose carefully
• Every letter must state clearly
  – Why the writer thinks this work is important
  – What assets the writer will provide
  – How the writer expects to benefit

WRITE THE DRAFT LETTERS YOURSELF!
Matching funds?

• Start early (VERY EARLY) – you must-
• KNOW YOUR LOCAL RULES!
  » E.G., UW’s in Seattle

• Secretaries, provosts, faculty DO NOT KNOW… every RFP, every agency, every school and department is different! Even GCS may not know! – find out!

• Be reasonable

• Start at the bottom and work UP
Subcontracts?

- You cannot write them yourself – so don’t even try!
- Start early
- Get your ideas okayed before going off-site
- Paper trail about roles, commitments, $$
- It will take MUCH longer than you expect!
Assessment & Evaluation

• Very poorly handled most of the time
• A good plan stands out nicely — (IFF on point re proposal goals, and at least partly quantifiable.)
• You aren’t the expert
• Get help – there are pros available – find and use them.
• Include them in the FUNDING, too!
ACTUAL proposal writing…
(as contrasted with planning)

• PROPOSALS ARE NOT SCIENTIFIC ARTICLES
• PROPOSALS ARE NOT DEATHLESS PROSE
  (nor are they drama where you build to a climax!)
• PROPOSALS ARE SALES-JOBS!!
Step #6a - Writing

THE MEAT!

1 – DEFINE THE PROBLEM (what’s the question?)
2 – PUT IT INTO CONTEXT (relate it to the universe)
3 – TELL WHY IT IS INTERESTING (why should the reader care?)
4 – TELL HOW YOU WILL INVESTIGATE IT
5 – LIST YOUR NEEDS

IF YOU CANNOT DO ALL THIS IN <5 PAGES OF TEXT PLUS ONE FIGURE, THEN YOU HAVE NOT THOUGHT THROUGH THE PROBLEM.

(ref Eric’s ONR instructions)
First, define the problem!
(This is usually NOT easy, and is seldom done before starting to write!)

- Two sentences, 40 words, 4 commas
- No jargon of any sort

- Urban Ecology IGERT experiences
  - Define field, ID problems?
  - 3 years, 147 drafts, 200 hours of meetings!
  - THEN the proposal worked (3rd time)
Then, define your solution...

• Two sentences, twenty words each, not over 2 commas each.
  • And you thought defining the PROBLEM was hard……
Step #6b – Writing

• **Are you being easy on reviewers?**
  – No jargon
  – Dance the tightrope re content level
  – Anglo-Saxon English, active voice
  – <3 commas & <=20 words/sentence
  – Get the grammar right (Doubt? Simplify!)

• **Guide the reader**
  – w/headings, typefaces, etc.
  – Remember – 50 proposals in one airplane ride……
Especially important - sequencing of materials

• Put conclusions FIRST
  – In every paragraph
  – In every section

This lets knowledgeable readers agree with you and skip forward, saving time.

This makes reviewers your friends!
Step #6c – Writing principles

• **SHORT is good.** Shorter is better. Pare it down.  
  E.g., Use a sentence, not a table.

• **CITATIONS** – Cite only for controversial or critical points, or to support unexpected arguments or conclusions.

• **FORMAT** – Obey the RFP. Big fonts, white space. Bold, frequent headings, mostly from your RFP checklist.
TITLE

BRIEF
INTRIGUING (memorable is good)
INFORMATIVE
JARGON-FREE IF POSSIBLE
SEARCHABLE WORDS

GET HELP, take care – Your own brightest idea may really stink (mine usually do) – but you’ll never see that for yourself.
Title?

Example -

“Proposals: strategy, tactics and writing”
or
“The known universe: replicate #2”

.....

(Are there any questions as to what will be covered?)
What’s in an ABSTRACT?

• Not a summary
• Complete story in 2-5 sentences max
• NO JARGON, simplest possible English
• Often not called out separately (?do it anyway?)
• Little box at top of summary = good idea
• Extractable by PM for annual report
Step #7 - Editing

ONE VOICE means ONE EDITOR

You need (near?)-professionalism here
Few people are good at it
After draft #3, you can’t do it for yourself
Step #8 – Independent review

Outside preliminary review is **MANDATORY**

“Outside reviewers” — intelligent interested non-specialists
These are important people, your best advisors – therefore……

No **YES-MEN** allowed: serious, detailed critique is needed.

**DON’T ARGUE**
**JUST LISTEN CAREFULLY**
**THEN FIX THE PROBLEMS**
Great effort - nevertheless, you’re dead. Why?

The Logistics Dirge

• AKA – You **DID DO** a special Gantt just for your proposal endgame, didn’t you?
• Must ship FedEx by 1700-12th of Never
• You have 0800/10th to 1600/12th ……..
  • You are going to be VERY busy
  • Some of your help will have the flu
Step #9 – “Some Assembly Required”

“The horror! The horror!”
-M. Brando, Apocalypse Now

25 co-PIs, 20+ institutions, 50 copies, 980 pages in two 4” notebooks per copy, 125 numbered sections, and the xerox runs out of toner...... at 2:30 AM! “Where’s a shipping box for this thing?”

****$86.6 M, funded as requested****
Step#10 – Ship it!

• SUBMISSION –
  – Submit early (Why? - FedEx, tactics)
  – Information copies (e.g., co-funding?)
  – Suggesting reviewers and non-reviewers
About done.....

• Feed the team!
Post-acceptance tactics?

IF FUNDED –

KEEP THE PM INFORMED
MAKE THE PM’S JOB EASIER
– LOAD THEM UP WITH INFO
Post-acceptance tactics?

ABOUT PROBLEMS-

THE PM IS VESTED IN YOU
   (Your failure is not an option!)
THE PM HAS HUGE RESOURCES
THEY LOVE TO HELP
ASK FOR HELP EARLY, NOT LATE!
Post-rejection tactics?

NOT FUNDED (= the rule)

Reviewers are your friends.
They are neither stupid nor vindictive.
(The problem is with your approach/writing, not with their intellect!)

THEREFORE - Correct and resubmit....
Any idea worth a try is also worthy of a second shot!

Identify as resubmission? YES! Consider the psychology!
The overall process – a review

- Define the problem & your solution
- Analyze RFP – make a detailed precis
- Analyze audiences
- Define team, roles
- Gantt Chart – detailed tasks, timeline
  - ID the true killer deadlines way in advance!
- Collect support (people, assets)
- WRITE & arrange things - delegate pieces!
- Edit
- Assemble, ship, pray (and/or drink heavily)
It’s probably lunchtime - WE CAN STOP HERE!
About the actual writing...
Core resources

Strunk & White, “The Elements of Style”. Re-read this book annually, browse it during every document you write.

Whyte – “The City – rediscovering the city center” (also “The Organization Man”) (Best possible example of good prose explaining complex stuff simply.)
Nine basic writing rules (1 of 2)

1- Always begin by knowing your audience(s) and your goals

2. WRITE!

3. “KISS”: Keep It Simple and Short

4. Your goal is always to present information clearly, and reason with it to a conclusion

5. Avoid jargon
Nine basic rules (2 of 2)

6. Use the first person, active voice
7. Get the grammar and spelling right!
8. Help your readers
9. Show your data
MAKE THE REVIEWERS' JOB EASY

(So, what’s wrong with this slide?)

Avoid jargon. Remember: many non-specialists will deal with, and review, every proposal. You are writing it because YOU are (presumably) the expert, so you must educate (and enthuse!) all readers. One can explain complex things using simple everyday words. If you cannot, then you do not understand the subject yourself. Unknown terms hinder, irritate, and confuse the reader. Use spell-checkers: they find both jargon and misspellings. They also miss a lot. Write so that a non-native speaker of English, using an old dictionary, cannot mis-translate it. This requires extensive editing and outside help. You cannot do it alone. The PM should be able to use the proposal itself to explain "Why?" to the (inevitably non-specialist) boss.
And it was old One Stone, too, who first guessed and then showed that the Pull Down on all things — the Pull that gives us weight, the Pull toward the ground that we feel at all times — is not a true pull at all, but what is known as a “fake pull” — the same kind of pull as pulls things from the hub toward the rim of a wheel that spins. Such pulls are called “fake” since they all go up in smoke when you make a shift in what you deem to be “at rest”. Though but a shift in your head — though but a trick in how you look at things — such a shift casts all things in a new light. Mind you, fake pulls are not like most pulls, for they make all things, be they great or slight in weight, pick up speed at one and the same clip (a truth most odd, in truth). Thus, since the Pull Down on all things is this way, old One Stone was tipped off that he might try to see it as a fake pull. No one else had thought to do this, though it had been plain as day for all to see for scores of years. When One Stone tried this out, he soon found that the Pull Down could well come from a Bend in the shape of the Great Bare Frame whose three sides are called “length”, “width”, and “height” (that is, north and south, east and west, up and down), and through which we all wend our way. This Great Frame, which no one can see, has Stuff in it here and there; and the Bend in it, which no one can see, comes from the Stuff in the Frame: The more Stuff found in a spot, the more bent is the Frame near that spot, and thus the more the Pull seems strong there. The Bend is, if truth be told, in Time as well as in the Frame, for Time, too, can be thought of as a side with no ends, a side that runs from “no more” to “not yet”, and when this fourth side is blent with the three old sides of the Great Bare Frame, it makes one thing — a new Great Bare Frame with four sides, none of which can be seen or felt, yet which are all in truth there. A Bend in such a weird Frame is a most hard thing to think of, and yet it is the way things are: It is what makes sticks and stones fall to Earth, our Moon float high up in the sky, and light from far stars bend in flight. All these things old One Stone wrote down four score years back, and in ten years or so from that time, all had been shown to be true by folks whose job is to gaze at the night sky’s lights. New Town’s old laws were thus shoved to the side and flung in the bin of “once right as right can be, and still kind of right, but now a bit less right”.

By the way, I wrote that long chunk (and this short chunk) while tied by two tight ropes at once: first of all, I used but words that have no truck with tongues that folks in old Greece and Rome once spoke, way back when, in days long gone; on top of that, all words I used have but one speech bite each. And this is why one might say, as a bit of a joke yet for that no less in truth, that I have here killed two birds with One Stone.
Language?

Use Anglo-Saxon English.

"The man ran down the hill" vs
"The post-adolescent human male perambulated at a high rate of speed in a pronouncedly downslope direction."
Get the grammar right

If uncertain, SIMPLIFY until there is no doubt. Clarity is the highest goal. You are too close to the proposal to see it clearly, so squash your ego: ask for and accept help.
Rules for sentence structure

No more than three commas in a sentence. Work hard at this.

No more than 20 words in a sentence. Work at this.
About group writing

Organization and process

1. Choose a leader.
2. Choose an editor.
3. Choose an enforcer.
4. Set a time line.
5. Assign specific tasks and due dates.
Moving forward…

Use your RFP precis as the outline

**Draft 1 – write fast, sloppy, long**

Re-read it. Modify, add, subtract, move chunks of text about. Apply KISS. Kill jargon now.

Now, adjust the text. For every paragraph and section (e.g., major topic, etc) put the conclusion FIRST: Trailing text explains how you got there. Put a three-word bold heading at the start of every paragraph: these should tell the entire story, clearly and in a logical sequence
More forward…..

Reprint this as DRAFT 2, and give it to all the others for written comment.

This is a very difficult step – it demands ego-suppression. None of us likes to hand out unfinished text for comment: do it anyhow. Do not polish this text, for there is no point…wasted time!
Edditing time! (Hmmm...?)

Editor must take the large view (which unfortunately is composed of nits!).

(1) Assemble and distribute the overall draft from individuals’ pieces. Print identical copies for people to chop on. Do this ON TIME: if some people are late, put in blanks with brief notes: “Josephine’s section, enroute”.
• (2) Go through the entire document, for details and consistency of style.

• (3) Require written comments ASAP. Set a firm deadline. Study them, use those which recur or genuinely help. Do this quickly: return a NEW set of hard-copies to all, for further written comment.
(4) Each group member gets a friend (from outside the topic area!) to read it brutally. These are important comments, because they show where you have failed to reach your audience. Discuss the outsiders’ comments at a face-to-face group meeting, and decide which to use or address.
Editing…. (aha!)

(5) The draft which results from (4) above is probably ready for submission.

Do so!