Presentation

- Almost all research is done through centers rather than department
- ABET accreditation in 2016
- Would like a focused Ph.D.
- Online degree opportunity
  - Water Resource/Environmental
- Mr. Evans
  - Retirement
  - .6 Assistant Professor
  - Have you thought about employing new instructor rank?
    - Did hire one person last year who is a possibility
    - Need a strategy for how this would work
    - May need to be a blend
- Enrollment
  - Comfort enrollment ~ 250
  - Is it leveling off or is it still growing?
    - Seems to be leveling off
  - How is new master’s program going?
    - Staying pretty consistent about 40
  - Have been pretty successful at recruiting international students
    - Except for external influences
  - Don’t advertise
    - Its word of mouth
    - If they did could have more students
      - Would need more space, teachers, etc.
  - Would you like to have better quality students?
    - Most are already quite good
  - Most of other engineering programs have had a lot of international students
    - Civil easily attracts local students
  - Are all 40 graduate students on assistantships?
    - Not all are
    - Some research
    - Some GTAs
**DOT**
- Relationship is excellent
- Have no problem generating and/or working on new problems for them
- Only limitation is number of FTEs
- DOT RFPs
  - In past, were going to Minnesota and Iowa
  - Dean Brown contacted them
    - Was told we weren’t at research level necessary
  - Department has made a lot of progress
  - Turned this around
  - Now DOT contacts SDSU first for many projects

**Hydraulics and Fuel Mechanics**
- Only one person with this expertise
- For defense exam only one faculty member understands the work
- Need a critical mass to do this well

**Are the 4 FTE tied to the Ph.D.?**
- Yes

**What are the other goals for next 5 years?**
- Great to recruit from outside the region
- What about recruiting international undergraduate students and then keep them for graduate programs?
  - Typically, not economically feasible to recruit undergraduate students
  - Have gotten a few
  - There’s lots of paperwork and its problematic
  - Can’t get transcript review done in timely manner
  - There’s some frustration
- Thinking about moving to Bachelor’s +30 credits for licensure
  - Could impact how curriculum is delivered
  - Some universities moving to a 5-year master’s degree
    - Would function as an accelerated masters
  - Each state has to approve separately because licensure is approved at state level
- Can improve undergraduate students
  - Currently recruit locally
  - Can strengthen program by recruiting more broadly
  - Asian countries have their own undergraduate programs so really looking for graduate
International schools take the cream of the crop from their country
  - Is there a strategic priority for the international experience
    - Have “increase global engagement” in the current plan

Engineering students already have a full degree program
  - If offer them a 3 credit global engineering course
  - May not have flexibility to take it
  - Would like to offer courses abroad that would count here
    - E.g. math or statics
  - Had a relationship with Egypt
    - Not a good place to send students right now

What are internship opportunities?
  - Most students would have some type of assistantship
  - Our Minnesota students get done earlier and have other offers before Minnesota makes offers for jobs
  - Department very engaged with its employer stakeholders
  - Have employers sponsor scholarships
    - Means to get to know students better

Research
  - Do a little over $1 million a year
  - Issues
    - Space
    - Equipment
    - Grad students
  - Can’t go after some grant funding
    - Don’t have Ph.D.s
  - Have no technical support
    - Projects are delayed
  - Have no base funding if something goes wrong with piece of equipment
  - Maybe can share a position or positions with another department
  - Can we multiple the direct return from projects?
    - Don’t have back up for equipment

Fee Structure
  - Still in first year of new fee structure
  - Still figuring this out
  - Will be doing an audit of this first year of the fee
    - Can get estimates as part of enrollment projections
  - Will take a few years to get caught up
  - Used to pay utility bills with Foundation dollars
Introduction

- Dept head + 10.6 FTE + 1.4 staff
- 260 undergraduate students
- 40 graduate students
- MPC/WEERC
- ASCE/SWE/EWB/ChiEp/WEF/AWWA
- ABET accredited undergraduate program
- 20,784 sq ft assigned space ↔ 22,843 sq ft + Hydraulics Lab in Ag. Engr.
- Environmental, Geotechnical, Structural, Transportation, Water Resources
Four Strategic Goals

- Improving the quality of undergraduate and graduate experience
- Grow externally funded research and contribution to SD economy
- Advance domestic and global engagement
- Establish facilities and resources to meet changing needs

Improving the student experience

- Add 4 FTEs to sustain the undergraduate program and to extend graduate teaching and research at the PhD level
- Increase the number of PhD level course offerings
- Increase private external funding support
- Renew ABET accreditation 2016
- Increase undergraduate research experiences
Growing Scholarship

- Focused PhD program (2 years)
- $50K new faculty start up packages (5 years)
- /FTE*year (≤5 years)
  - $100K external funding
  - ≥ 1 external proposal
  - Matriculate 2-4 grad students
  - One conference presentation delivered
  - One refereed journal submitted

Domestic and Global Engagement

- Alignment with our industry
  - Newsletter, advisory board, focused business meetings, ASCE, TRB
- On-line MSCE: Water Resource/Environmental
- MPC/WEERC outreach
- Outreach/Collaboration LG Universities, OLC
- International Development Engineering
Facilities and Resources

- Section size management “15/45”
- Increase departmental scholarships to 60-65
- Funded graduate fellowships
- 3 enhanced faculty
- Corporate sponsorship of offices, classrooms, laboratories
  - Classroom instructional upgrades
  - Office space for graduate students
  - Laboratory research space for PhD
  - Offices for adjunct and new faculty
  - ASCE office and project space
  - Senior Capstone Design Laboratory

Conclusion

- Dr. DeBoer retiring at the end of June
  - Search is underway for new faculty member in Physical – Chemical treatment processes – drinking water – environmental
- Mr. Emmons retiring at the end of May
  - Faculty proceeding strategically in cooperation with Dr. Brown.
    - Need to define the next faculty member to provide the critical mass of expertise necessary to pursue doctoral research