
Edwards Aquifer Authority

Strategic Plan 2020 - 2030

What must we do over the next 10 years to ensure that the Edwards Aquifer Authority leads in efforts to manage, protect and enhance groundwater quality and sustainability

February 11 & 27, 2020

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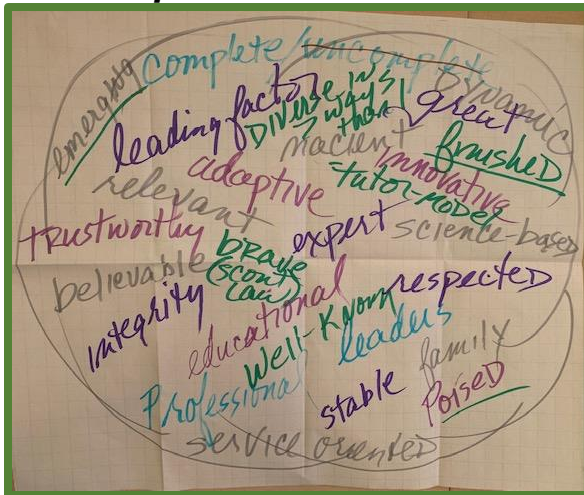
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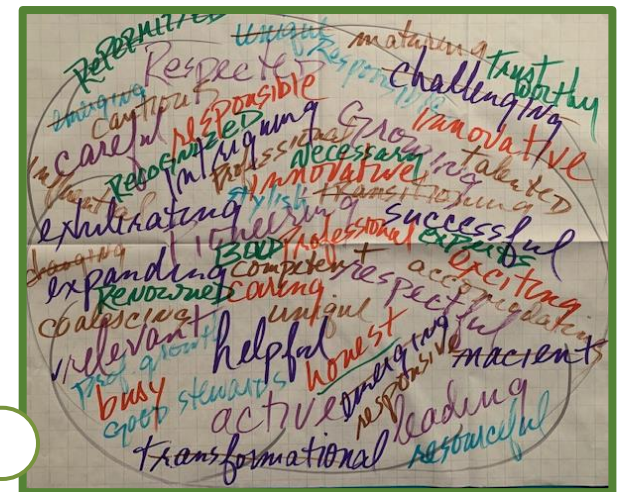
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EAA SNAPSHOTS

Multi color print = adjectives capturing this moment in time
 Crossed out = adjectives we hope not to see in 10 years
 Green print = additional adjectives we hope to be in place in the future



HOPES & EXPECTATIONS

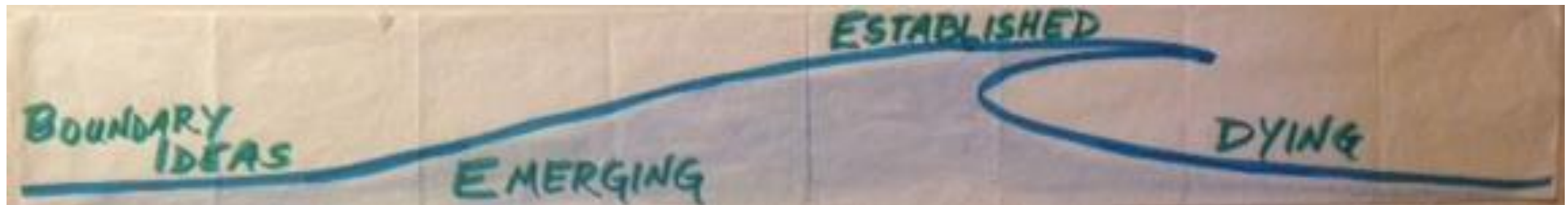
- ▶ Clarity
- ▶ Courage
- ▶ Insight
- ▶ Direction
- ▶ Focus
- ▶ Buy-in – Acceptance
- ▶ Dreaming
- ▶ Integration
- ▶ Letting go of past
- ▶ Non-pedantic
- ▶ Guiding the future
- ▶ Understanding
- ▶ Holding the Greater Good above Self
- ▶ Agreement

HISTORICAL SCAN

EAA: You're Not Going to Believe This!							
<i>It was a time of. . .Conflict</i>		<i>Learning</i>	<i>Growing</i>	<i>Emerging</i>	<i>Thriving</i>		
Key Events	1991-1996	1997-2003	2004-2011	2012-2019	2020	2021-2030	Trends/ Insights
Edwards Aquifer Authority	Sierra Club files lawsuit against USFWS SB1477 adopted 5/30/93 (appointed board) EAA fully operational (6/28/96) 11/5/96-1 st 15 directors elected. 1 st Board mtg 12/10/96 HB3189 – 1995 (elected board)	Greg Ellis: '97-'04 EAA approves AMF (6/97) EAA approves Groundwater Management Plan 2000 EAA adopts emergency rules for permits & drought mgmnt 1 st IRP issued (1/01) '02 Rules to prohibit underground fuel storage tanks on recharge zone Rules adopting new Critical period mgmnt	Robert Potts '04 – '07 Velma Danielson '07-'10 Karl Dreher '10-'12 '07 – SB3 – amends EAA Act, raises pumping cap. Establishes EARIP Feasible recharge areas study '05 Final initial regular permits issued 8/08	Roland Ruiz '12- HCP implementing & funding & Mgmnt agreements approved by applicants 1/1/12 HCP to achieve endangered species compliance submitted to USFWS 1/5/12 USFWS issues ITP '13 Edwards Aquifer Conservancy '14 '19 EAC/EAA Education Outreach Center groundbreaking Acquire Cibolo Vista tract for field research observatory	Strong, sustained funds for EAC Public ed of EAA purpose Perma culture strategy EAA 2021-2030 strategic plan Education/ research raises awareness Morgan's education Center completed EOP opens	EAPP survives & thrives Adapting policies to science Land use regulation Complete vulnerability assessment The 800 lb gorilla & farmers will continue to get off the aquifer	We've evolved from reactive to proactive Improved relationships with TX legislature Litigation has impacted EAA throughout Increasing understanding We have witnessed growth over the recharge zone Population growth will continue Direct discharge is an issue We need to engage others to address our water needs Legislation impact – use/reuse of H2O after it is put back in our waterways Quality is rising in importance over quantity, though pressure for quantity continues Economic conservation – Increasing economic value of H2O EAA "authority" is moving from legal to scientific Increasing role of control over protection Alternative Funding sources may be required to address emerging needs/issues We must manage public expectations as we deal with capacity and regulations
Ground-water management & protection	Water Wars – 1996 ASRs & Desal. Gain popularity worldwide Catfish farm well closed Safe drinking water act-1996 Basin mgt. GW conservation districts Applewhite Drought = State water planning	Texas faces water issues EAPP – '00 EAPP – Prop 1 Region L	New drought of record Horizontal well drilling EARIP established	ESA impact on surface water '12 Day vs. ELA '12 – defined ownership of groundwater Fracking End of drought Vista Ridge Permian pipelines	Roll-back clean water act protection Vista Ridge EAPP continued Advances in technology Funding aquifer protection	New ASRs – NBU, others Edwards Research Center operational Renewing/ rollover of HCP Funded & built field research observatory Breakthrough in abandoned wells Creative out-of-box solutions Staff development – enhanced capacity Well implemented land management Revised conceptualization of Aquifer model Engineered solutions – public/ private Conjunctive use – STEM – more water scientists Groundwater in corps of engineer permits Interformal flow model accurate Edwards Aquifer Protection Program tax for contributing zone	
World & Society at large	Desert Storm Gulf War Internet	Flood – '02, 703'-J-17 Y2K 9/11 Internet tech explosion Spurs Champs – '99, '03, '05, '07, '14 Recession Gulf War/ Iraq/Afghanistan Bush/Gore "hanging chads"	Climate change awareness Apple iPhone Great recession '08 Hurricane Katrina '05 Rise of Tea Party '04 Obama elected '08 Tesla electric car '12	Trump MAGA '16 Brexit Antarctic ice broke Drought Obama Hurricane Harvey '17	World peace Permaculture Cure to coronavirus Corona virus vaccine 1 st president impeached & re-elected in same year	Climate policy Less partisanship Internet focus on fact? Stability in health care Cure for Alzheimer's Teleporting	

TREND ANALYSIS:

What are the boundary, emerging, established and dying trends and practices in our field?



<i>New ideas pushing/ needing to become accepted trends & practices. Radical.</i>	<i>Trends & practices picking up momentum & acceptance. Experimental.</i>	<i>Trends & practices that are mainstream.</i>	<i>Trends & practices whose viability is overtly questioned. Outdated.</i>
<ul style="list-style-type: none"> ▶ Regional or aquifer-based regulation (?) ▶ Embracing “one water” & progressive land use management (?) ▶ Pipeline recharge ▶ Recognizing conjunctive impact at a regulatory level ▶ Openness to public/private partnerships (*) ▶ Manage cow based on science (not politics) ▶ Eco-system services (?) ▶ AI Big Data ▶ Cutting edge science ▶ Management – usable integrated models 	<ul style="list-style-type: none"> ▶ Alternative H₂O sources ▶ Public & private partnerships (*) ▶ Impacts of climate policies & unforeseen events (Covid 19) (?) ▶ Advances in modeling tech ▶ Land restoration ▶ External collaboration ▶ AMR automated data collection ▶ Regulation by service 	<ul style="list-style-type: none"> ▶ Data collection ▶ Regulations ▶ Regional cooperation ▶ Water banking storage ▶ Water conservation programs ▶ Clean water act ▶ HCPs 	<ul style="list-style-type: none"> ▶ Unregulated areas ▶ Paper ▶ Engineered enhancement ▶ Historic place of use ▶ Managing to drought of record ▶ Prescriptive ▶ Traditional approaches ▶ Myopic focus of water use ▶ De-regulation – lack of regulation for use ▶ Recharge dams

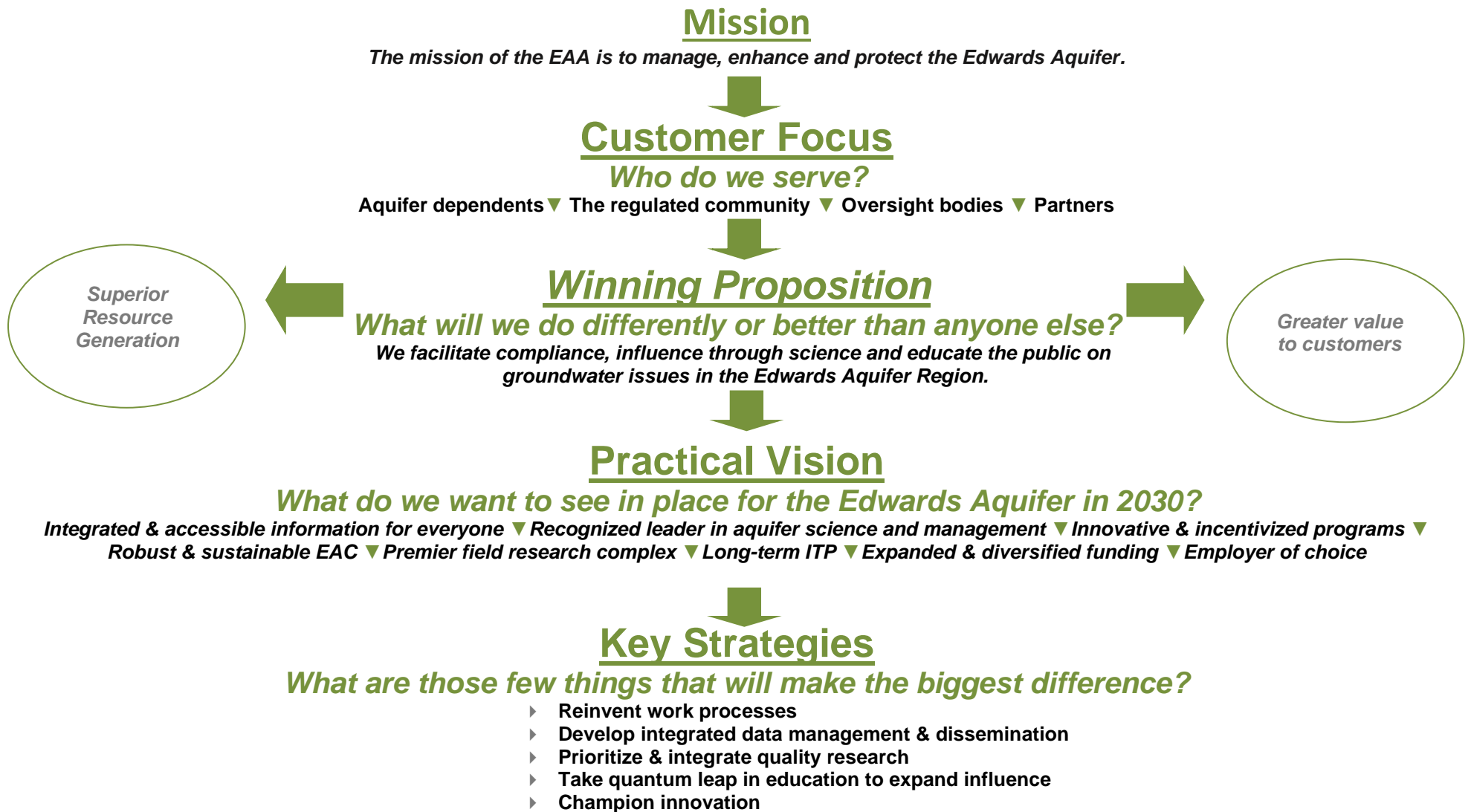
(*) Practices being received with openness

(?) Areas of resistance, challenge

Implications for the EAA:

- Climate/ population changes demand that EAA is highly adaptive
- Public-private partnerships demand flexibility
- Need the capacity to communicate quickly and clearly
- Automation – updated data – must be easier, quicker and accurate
- We must be realistic with ourselves: our work will never be done
- We must have the expertise to have the capacity to keep up with change
- Must have balance: Stakeholders and establishment
- We're (EAA) treated differently – protected to changes
- It is critical for us to be clear about where we're going
- Must have clear profile of EAA employee of 2030

Strategic Choices for the Edwards Aquifer



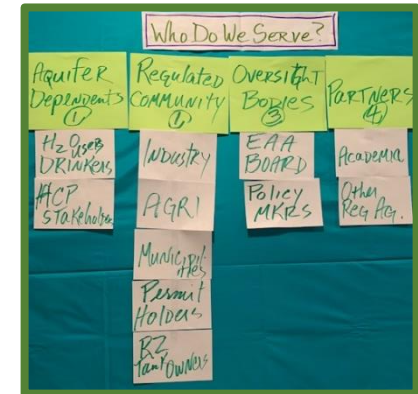
CUSTOMER FOCUS: *Who do we serve?*

Aquifer Dependents: (H₂O users/drinkers, HCP stakeholders)

The Regulatory Community: (Industry, agriculture, municipalities, permit holders, RZ Tank owners)

Oversight Bodies: (EAA Board, Policy makers)

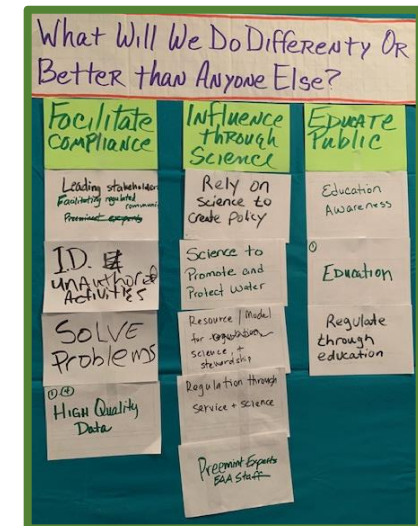
Partners: (Academia, Other regulatory agencies)



Winning Proposition: *What will we do differently or better than anyone else?*

We facilitate compliance, influence through science and educate the public on groundwater issues in the Edwards Aquifer Region.

Facilitate Compliance	Influence through Science	Educate Public
<ul style="list-style-type: none"> ▶ Leading stakeholders – facilitating the regulated community ▶ ID unauthorized activities ▶ Solve problems ▶ High quality data 	<ul style="list-style-type: none"> ▶ Rely on science to create policy ▶ Science to promote and protect water ▶ Resource/model for science, and stewardship ▶ Regulation through service & science ▶ Preeminent experts – EAA staff 	<ul style="list-style-type: none"> ▶ Education awareness ▶ Education ▶ Regulate through education



PRACTICAL VISION: What do we want to see in place in 2030 for EAA?






Integrated & accessible information for everyone	Recognized leader in aquifer science & management	Innovative & incentivized programs	Robust & sustainable EAC	Premier field research complex	Long-term ITP	Expanded & diversified funding	Employer of choice
<ul style="list-style-type: none"> ● Integrated & accessible data & reporting for everyone ● EAGIS 2 ● Highly informational & interactive website ● 100% digital regulation (customer service) ● In-house tech/app development ● Web/App portal for permittees ● Integrated web app EAGIS ● Centralized data access for all ● Regional data sharing (eliminate duplication) 	<ul style="list-style-type: none"> ● People look to EAA for all aquifer issues ● Established research program w/ land management & water quality data/results ● Tools to assess climate & Edwards Aquifer ● Regional trust of EAA ● Proven practices that enhance water quality & quantity ● All abandoned wells addressed ● Maintenance of H₂O quality 	<ul style="list-style-type: none"> ● Incentivized private-public partnerships ● We are the Edwards-Trinity Aquifer Authority ● Partnership with regulated community ● Conjunctive management of Edwards & Trinity ● Secured & protected aquifer system ● Core programmatic surety ● Stakeholder/regulatory community buy-in & trust 	<ul style="list-style-type: none"> ● Independent Edwards Conservancy with new board members – runs independently & tasked to raise \$10M/year ● Development of EAC into conservation leader ● Education outreach center built ● EAC established & well-funded ● Water symposium of national/international gathering to announce achievements/results 	<ul style="list-style-type: none"> ● Scientific research station built ● Cutting edge regional facility ● Research center as hub for international research ● Research center where scientists collaborate on aquifer studies 	<ul style="list-style-type: none"> ● Long-term HCP/ITP ● New ITP 30-year permit ● Long-term flexible ITP/HCP 	<ul style="list-style-type: none"> ● Multiple funding sources ● Adequate AMFs 	<ul style="list-style-type: none"> ● Employer of choice

SITUATION ANALYSIS

Consideration of those things that will impact movement toward our winning proposition & vision. . .

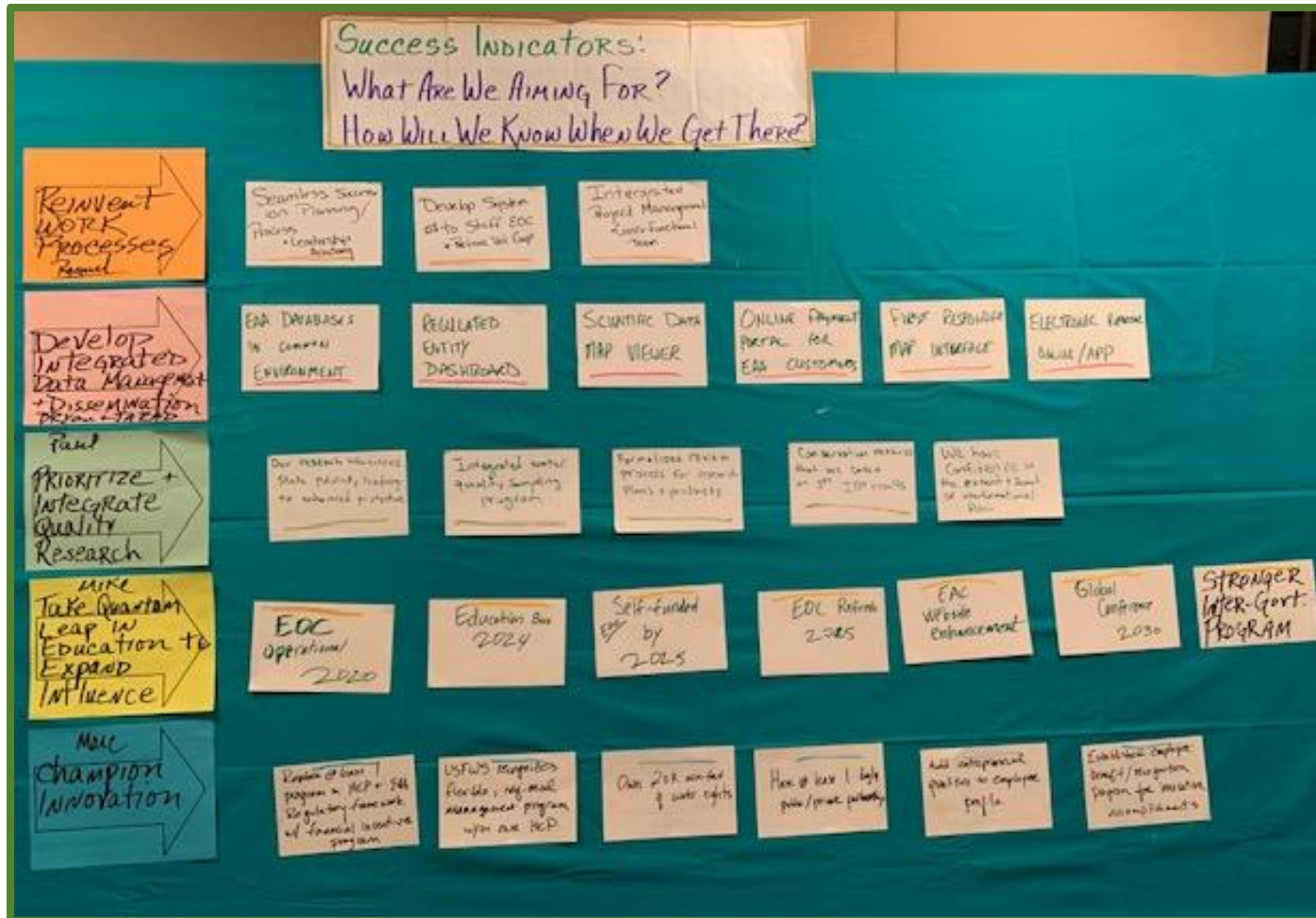
INTERNAL		EXTERNAL	
Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> ▶ Diverse, talented staff ▶ Tech expertise ▶ Funding contracts ▶ Integrity ▶ Facilities ▶ Well-defined mission ▶ Scientific capacity with staff ▶ Legal & regulatory security ▶ Staff like our purpose ▶ Strong GM ▶ Community minded ▶ Noble cause 	<ul style="list-style-type: none"> ▶ Board is not a fundraising board ▶ Struggle with ambiguity ▶ Staff quantity vs. quality ▶ Government bureaucracy ▶ Increasing/expanding mission with finite resources ▶ Complexity – hard to develop processes needed ▶ Hard to collaborate with each other ▶ Hard to prioritize ▶ Specialized expertise is not yet on staff ▶ Low public awareness 	<ul style="list-style-type: none"> ▶ Foundation grants ▶ Computer models ▶ Regional collaborators ▶ New generation of activist stakeholders ▶ Legislature ▶ IT Developers ▶ EOC ▶ Outside research collaborators ▶ Universities, Public-private partnerships, internships ▶ Growing environmental awareness ▶ Ground water problems outside the Edwards region can be opportunities for EAA 	<ul style="list-style-type: none"> ▶ Rival funding prospects – competition ▶ Misperceptions of who EAA is ▶ Property rights ▶ Stakeholders – old guard vs. new ▶ Scientific misunderstandings ▶ Current regulations might fail in severe drought situation ▶ Water quality might fail – perception would plummet ▶ Anti-regulation environment ▶ Climate change ▶ Others make their problems ours
What is blocking us from success?		Key challenges ahead	
<ul style="list-style-type: none"> • Disparate IT systems • Collaboration breakdowns • Self deception “it’s not my fault” • Staff capacity & resources • Insufficient planning for dissemination of data • Stakeholder challenges – trust issues • Undeveloped communication • Board’s not a fundraising board • Community perception about what we do • Balance between boldness & political caution • Courage to embark on new funding • No consensus on employer priorities 		<ul style="list-style-type: none"> • Cross program collaboration • Discipline & prioritization • Infrastructure • Trust – internal & external • Forgive failure – create risk taking culture 	

KEY STRATEGIES

KEY STRATEGIES	Success Indicators 2030
<p>Reinvent work processes</p>  <p><i>Raquel Garza</i></p>	<ul style="list-style-type: none"> • Seamless succession planning process – Leadership Academy • Develop system to staff EOC – Retiree Volunteer Corp • Integrated project management – cross-functional team
<p>Develop integrated data management & dissemination</p>  <p><i>Bryan Anderson & Jared Morris</i></p>	<ul style="list-style-type: none"> • EAA databases in common environment • Regulated entity dashboard • Scientific data map viewer • Online payment portal for EAA customers • First responder map interface • Electronic reporting online/ app
<p>Prioritize & integrate quality research</p>  <p><i>Paul Bertetti</i></p>	<ul style="list-style-type: none"> • Our research influences State politics, leading to enhanced protection • Integrated water quality sampling program • Formalized review process for research plans & products • Conservation resources that are based on 1st ITP results • We have confidence in the extent & amount of inter-formational flow
<p>Take a quantum leap in education to expand our influence</p>  <p><i>Mike De La Garza</i></p>	<ul style="list-style-type: none"> • EOC operational – 2020 • Education Bus – 2024 • Self-funded EAC by 2025 • EOC website enhancement • Global conference 2030 • Stronger inter-governmental program
<p>Champion innovation</p>  <p><i>Marc Friberg</i></p>	<ul style="list-style-type: none"> • Replace at least 1 program in HCP & EAA regulatory framework with financial incentive program • USFWS recognizes Florida, regional management program w/in our HCP • Own 20K acre-feet of water rights • Have at least 1 bigly public/private partnership • Add entrepreneurial qualities to employee profile • Established employee benefit/recognition program for innovative accomplishments

WHAT WILL IT TAKE TO MAKE THIS WORK?

- **Champions for each strategy will support & monitor progress on plan. Brock Curry will coordinate champions efforts**
- **Develop 1-year implementation plan with goals & objectives**
- **Get approval from EAA Board**
- **Share with the rest of the EAA staff and get buy-in**
- **Build a culture of collaboration, trust and risk taking**



About Mary Flanagan & Strategy & Leadership. . .



Strategy and Leadership, LLC provides group facilitation, consultation and training to businesses and organizations. Strategic and project planning, organizational development, team building and leadership effectiveness are common topics of client engagements. The company has offices in Nashville TN and San Antonio TX.

Mary's work with Strategy and Leadership began in 2003 and builds on 25 years' experience in planning, project development, fund raising, coalition building, board governance, leadership development and management in the nonprofit arena. Her list of local clients includes the University of Texas Health Science Center at San Antonio, Rack Space, The San Antonio Symphony, Texas Public Radio, United Way, Our Lady of the Lake University, Trinity University, UTSA, Charity Ball Association, San Antonio Area Foundation, Girl Scouts of Southwest Texas, Valero Energy Corporation, City of San Antonio, Bexar County, Texas Nurses Association and more. She also works with a number of clients outside of San Antonio and Texas. With every client, she helps groups clarify the issues/challenges they need to address, and helps them create working solutions they believe in.

Mary holds a Master's degree in Social Work from the University of Houston Graduate School of Social Work with a focus on community & organizational development, and a BA with Honors from the University of Texas at Austin. She is licensed as an Advanced Practitioner of Social Work in Texas (LMSW-AP). She is a Mentor Trainer through the Institute of Cultural Affairs, and has been awarded master facilitator status and carries a national certification, Certified ToP Facilitator (CTF). She has served on numerous professional and community committees and boards, and continues to lead in such capacities.

Mary has been married for 40 years & has a son & a daughter, both adults. She has been a long-distance runner & completed 6 marathons. She now enjoys walking, hiking and cycling as alternative endorphin-producing forms of exercise.