



A Business Model For Nature Pointe

Presented by Martin Pilch
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Finance Committee:
Veronica Montano-Pilch, Treasurer
Gary Clark, Martin Pilch, Heidi Ruffner, Eric Schindwolf

January 29, 2017
Nature Pointe Clubhouse

**This information is restricted to the NP Board
and HOA members unless approved otherwise by the Board**

1

A personal note on who I am

Husband to Veronica (Board member), 6 kids (1 at home, 3 more in town), 11 grand kids (6 in town), mother in law (lives with us), and 2 dogs

We've lived in the community about 19 months, 6 in the shop apartment while waiting for our new construction retirement home to be completed
Lot 90 26 Mustang Mesa Trail

We're vested in the community and willing to share skills and experience to make it successful

Ground Rules:

I'll answer questions of clarification in real time

More general questions or comments or topics for discussion should be sent to the parking lot (managed by Veronica)

Veronica will mediate the Q&A period at the end



Premier gated community in the East Mountains with a truly unique clubhouse and relatively low HOA dues



Resort living at home

More amenities than you can count on your fingers

Reliable (Entranosa) water, reliable (PNM) electricity, and ~ high speed internet

Convenient access to Albuquerque

What more could you want?

WE WANT ASSURANCE THAT THIS IS SUSTAINABLE

What is a business model?



- **Documented and transparent strategy to ensure long-term viability of NP HOA i.e., no special assessments**
 - Analyze cash flow and cash reserves with a 30 year planning horizon
 - Use the model to analyze various scenarios and trade-offs to better inform the community and Board decisions

The NP Business model is an Excel workbook



- **Key inputs**

- All historical Profit and Loss Statements and supporting details in QuickBooks (i.e., our accounting software)
- Reserve Study performed by Association Reserves in 2014
 - Email communications with Robert Nordlund CEO/Founder and phone conversations with Will Schafer (Reserve Specialist)
 - Website educational literature and webinars
- Documented cost/benefit analysis for road maintenance

- **Supporting data documented in separate worksheets**

- All scenario options, all cost and useful life estimates, all historical P&L statements, historical inflation data, historical new housing starts for the SW, HOA dues comparison data, key cost/benefit analyses

- **Math in an earlier version verified by Dan Sprauer**

5

Why am I qualified to do this?

PhD Nuclear Engineering

Retired from Sandia in Feb 2016 after 35 years

Worked on commercial nuclear power reactor safety and “national security types of issues”

Lab leadership in risk assessment for high consequence systems

Directly managed research programs in the \$15M to \$25M range and deputy to a \$110M program

Certified as a Project Management Professional by the Project Management Institute

Why a business model?



**“We can’t manage it unless
we know what it is”
-Marty Pilch-**

30 year planning horizon?????



**"It's tough to make predictions,
especially about the future"**

-Yogi Berra-

But

**"If you don't know where
you are going, you might end
up someplace else"**

-Yogi Berra-

Avoid special assessments!

7

Assumption check:

Can we agree
that from a HOA and homeowners perspective
that special assessments are unfair and to avoided?

Would the developer have a different perspective?

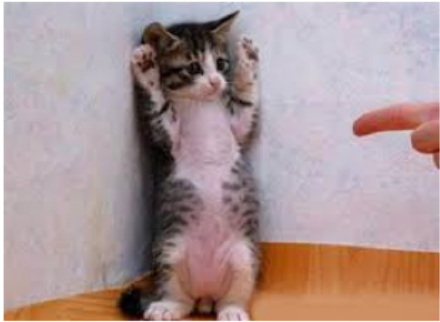


Outline:

- **Analysis of scenarios** ← **Focus of this presentation**
 - Why do we need weddings?
 - Does NP have a viable future with the SUP and mediation wedding agreements?
 - What's our risk of special assessments?
 - What can we do to manage expenses?
 - What can we do to manage income?
 - Why must HOA dues be inflation adjusted?
 - What is the sensitivity to alternate income streams?
- **Uncertainty modeling** ← **Too cool! Only a peek**
- **What does it mean to be sustainable?**
- **Call to action!**

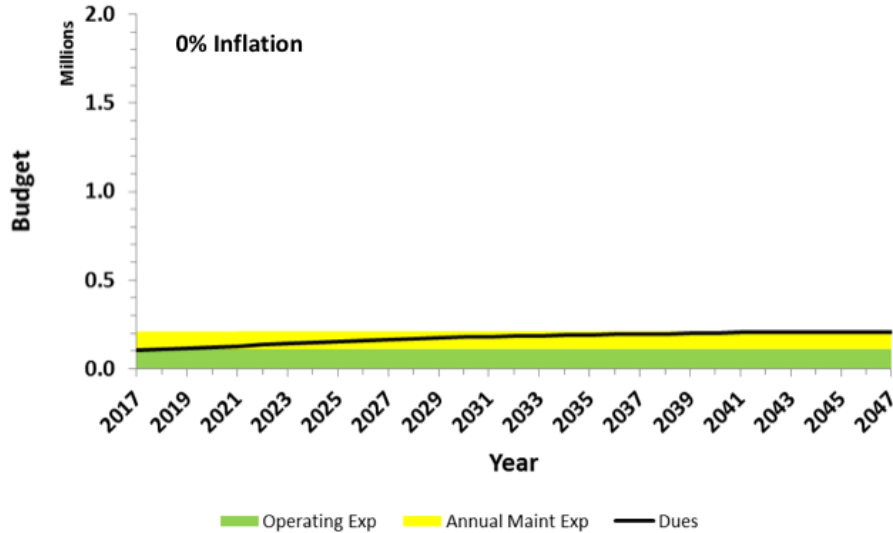
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Tell a story through the evolution of various scenarios





Some other source of income is required to meet operational and maintenance expenses until the community is built out



10

Dues only, no weddings, no rental income

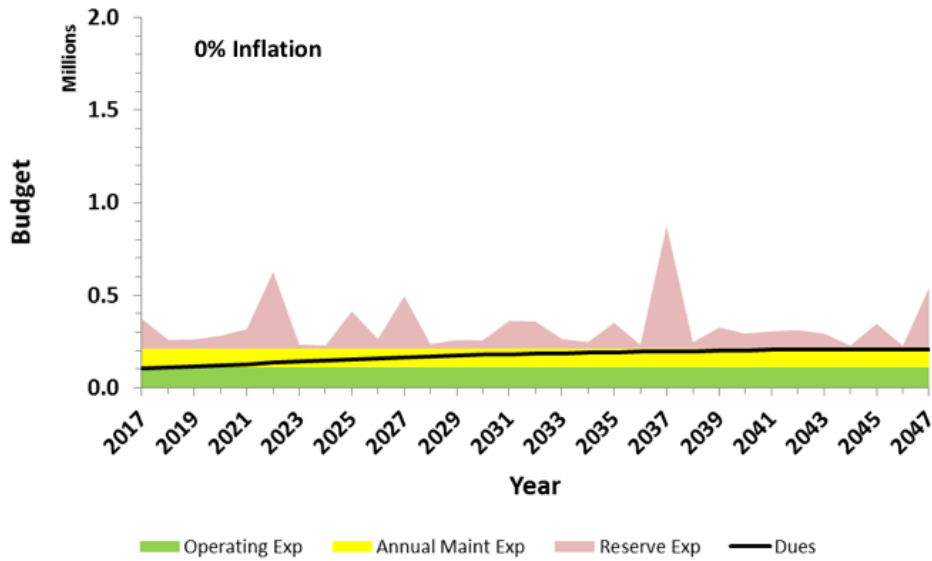
Current development status

29 homes, 42 sold lots w/o homes, 41 unsold lots, 22 of which are not developed

Assumption: sell 3 lots/yr cap 107 build 3 lots/yr cap 104

Community built out in ~25 years (2042)

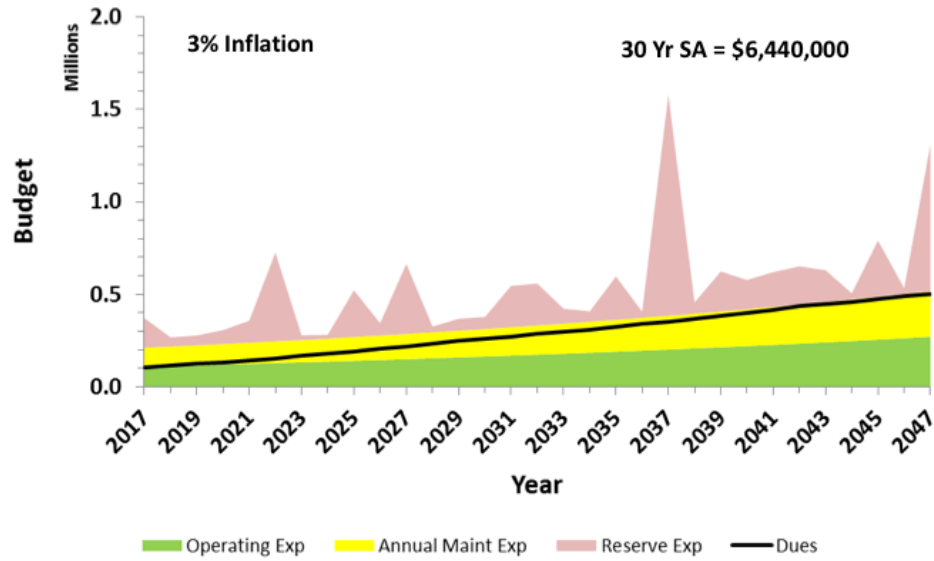
Current HOA dues will *never* be sufficient to cover the added burden of reserve expenses



11

Reserve expenses cover deterioration and replacement of assets
Expenses occur infrequently and often are big ticket items
Tend not to think about these things e.g., resurfacing of roads, reroofing the clubhouse, replacing the evaporative coolers, etc

More realistically expenses and HOA dues must be inflation adjusted



12

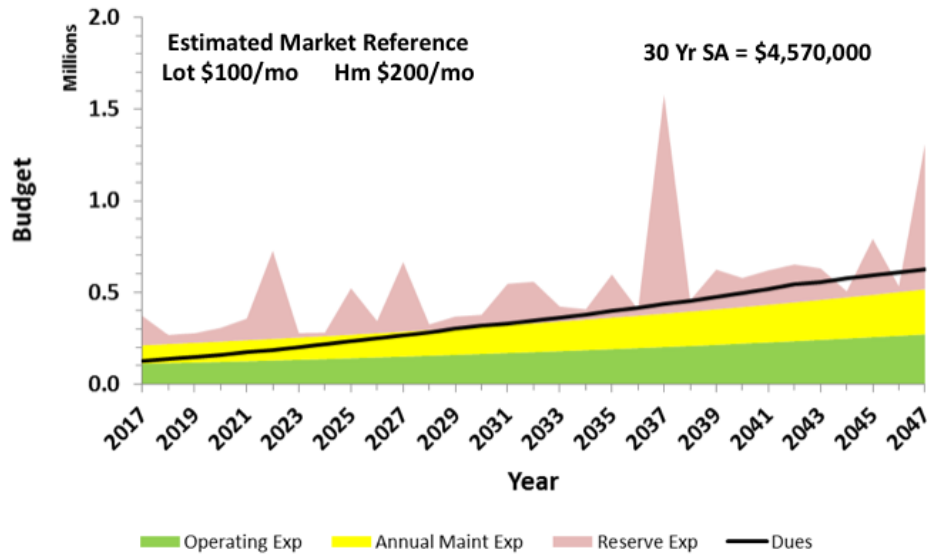
AR used 3%

Yes inflation has been <2% the last couple of years

But if you are going to make 30 predictions, you want to use a number representative of the 30 year average

That's about 3%

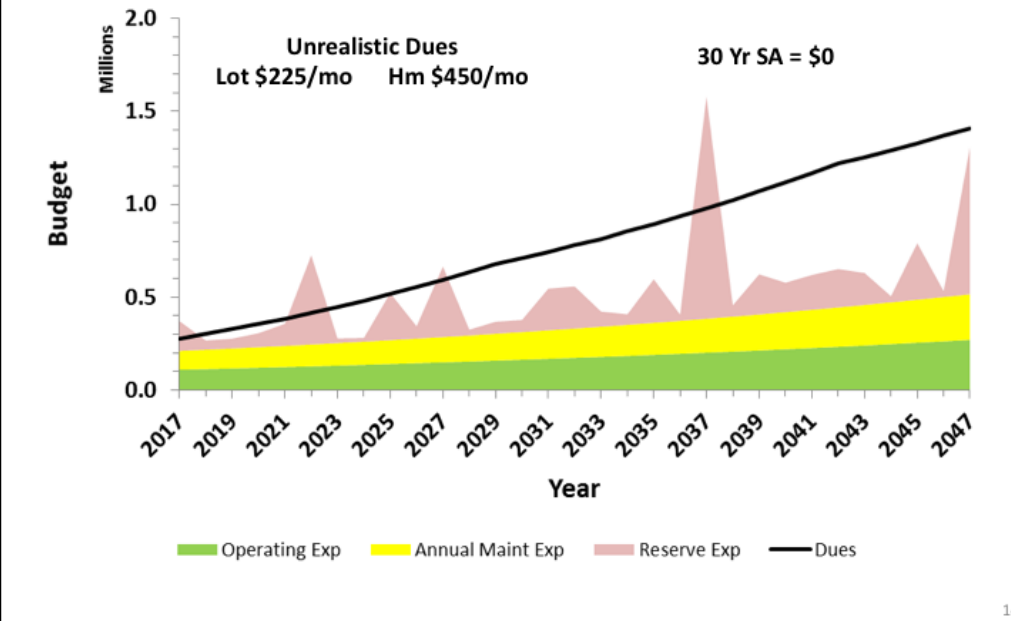
Raising HOA dues alone will not solve the problem



13

Market reference based on comps that I and another member did a couple of years ago
 Admittedly a difficult assessment because there is nothing exactly like Nature Pointe
 We have 3 realtors in the community, help us update this important assessment
 I only ask that document the basis of your assessment because if its not documented,
 it does not exist

Dues would have to be well above market to avoid special assessments



At these dues you just skate by if all of dozens of assumptions hold true
 If there is any deviation of any of the assumptions, then the likelihood of SA increases dramatically at these threshold dues

**There is only one reason
to have weddings at Nature Pointe**



Includes corporate events

Wedding in the short term are needed to cover shortfalls in operational and annual maintenance activities

And for all time to cover reserve expenses

Baseline: Where we are today, more or less



- **Management reserve \$50,000**
- **Effective reserve fund \$239,020 today**
 - All sources of income and expenses feed/deplete this pool of money
 - **Special assessment required if this pool goes negative in the future**
- **Community growth assumptions**
 - Sell 3 lots/year, build 3 lots/year, with caps, built-out 25 years
- **Income inflation adjusted (3%/yr)**
 - Rent shop and clubhouse apartment
 - Wedding income constrained by SUP/mediation agreements
 - Dues at today's rates (\$160-home; \$90-lot)
 - Investment rate on reserve fund 0.11%
- **Expenses inflation adjusted (3%/yr)**
 - Clubhouse manager about half time
 - Full time maintenance person plus half time help
 - Reserve expenses per Association Reserves with some modifications for reality
 - Deferred road maintenance
 - Wedding expenses up following mediation agreement
 - State and federal income taxes on net income i.e., all HOA income – all HOA deductions

16

Management reserve:

\$50K is about 12% of CY2016 budget. The typical DoD program MR is between **5%-15%**.

By definition, not part of the cost baseline

Used to address "surprise" i.e., the unknown-unknowns (for instance, our current problem with Kitec plumbing fixtures)

In the case of NP, also provides a little cushion for misalignment in the time of cash flow

Effective reserve

Best practice is to segregate operational accounts (including annual maintenance) from reserve accounts

We don't that

We do have something we call a reserve account, but mostly it is something we point to a say, "see, we have a reserve account, and we put money into it this year"

Our reserve account is restricted to capital expenditures (for instance, we can't use it for legal expenses)

Sometimes we throw caution to the wind and buy CD's to get a slightly higher interest rate

Up to now, the community has been young and did not have much in the way reserve expenses, and when we did, we paid them out of operational accounts

For the purpose of this exercise, we define our effective reserve to mean the total of all our cash accounts – management reserve – unaccrued moneys

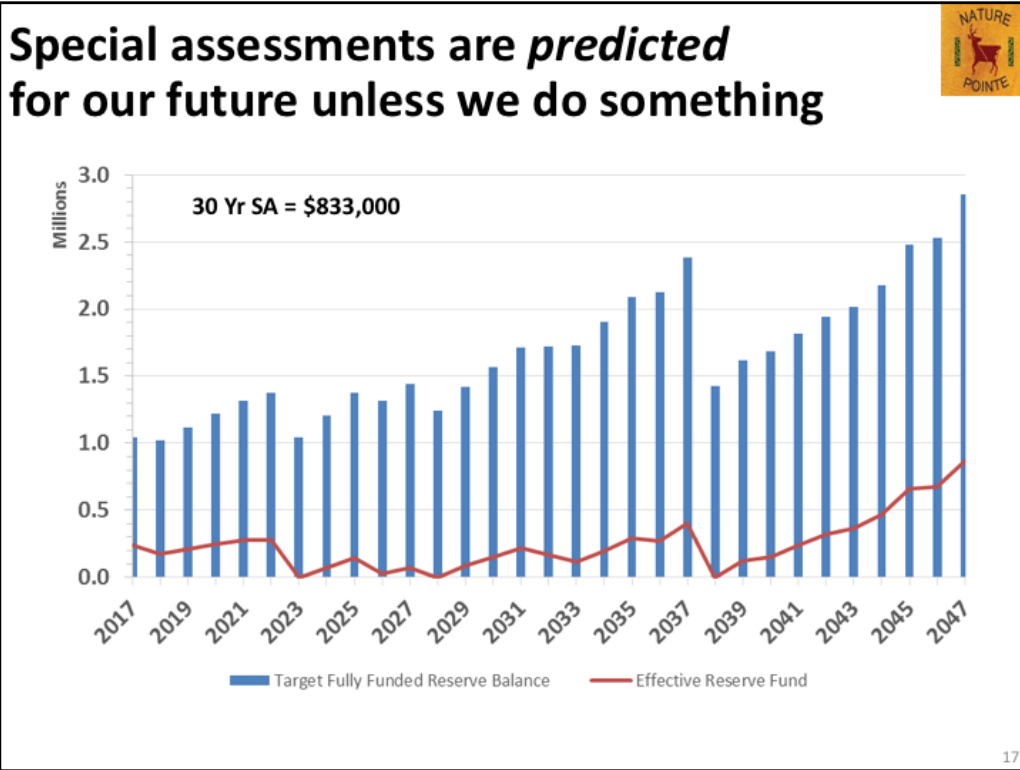
Growth assumption

Not 112 lots with homes, but something less and more realistic

107 lots sold and 104 homes

Some lots might be held by the developer, some are not desirable, Horton's might not subdivide

Some lot owners might not build: privacy, investment



Emphasize “Predicted”

That may or may not be reality depending on how reasonable the all the model inputs are

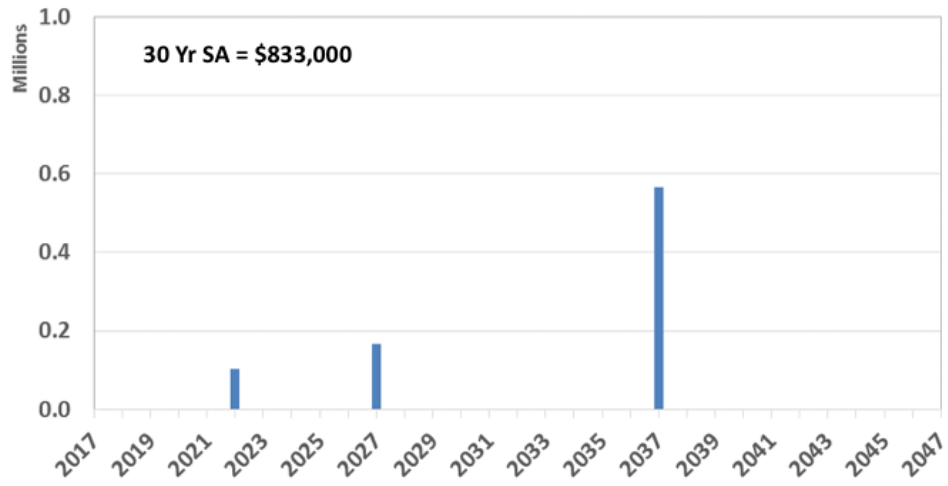
Target fully funded reserve balance

That's the money we should have in our reserve account to cover reserve expenses when they come due

We're way short of that target resulting in SA in 2023, 2028, 2038

The red line doesn't dip below zero because the SA's bring it back to zero

Special assessments are *predicted* for our future unless we do something



18

Key assumptions: all the assessments are correct


No surprise, the red flag for special assessments was raised in 2014

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"Full" Reserve Study



Nature Pointe HOA
Tijeras, New Mexico

Report #: 27360-0
For Period Beginning: January 1, 2015
Expires: December 31, 2015
Date Prepared: October 25, 2014



3- Minute Executive Summary

Association: Nature Pointe HOA # 27360-0
Location: Tijeras, New Mexico # of Units: 112
Report Period: January 1, 2015 through December 31, 2015

Findings/Recommendations as-of 1/1/2015:

Projected Starting Reserve Balance:	\$79,800
Current Fully Funded Reserve Balance:	\$724,886
Average Reserve Deficit (Surplus) Per Unit:	\$5,760
Recommended 2015 Monthly "Full Funding" Contributions:	\$8,100
Alternate Minimum Contributions "To Keep Reserves Above \$0":	\$6,700
Recommended 2015 Special Assessment for Reserves:	\$0
Most Recent Budgeted Reserve Contribution Rate:	\$833

Reserves % Funded: 11% 25% 50% 75% 100%

Special Assessment Risk: High Medium Low

Economic Assumptions:
Net Annual "After-Tax" Interest Earnings Accruing to Reserves 1.00%
Annual Inflation Rate 3.00%

- This is a "Full" Reserve Study (original, created "from scratch") based on our site inspection on August 25, 2014. It was prepared by a credentialed Reserve Specialist (RS).
- The Reserve expense threshold for this analysis is \$1,000. This means no expenses under \$1,000 are funded in the Reserve Study.
- Because your Reserve Fund is 11% Funded, this means the association's special assessment & deferred maintenance risk is currently high. The objective of your multi-year Funding Plan is to **fully fund** your Reserves, where associations enjoy a **low-risk** of Reserve cash flow problems.
- Based on this starting point and your anticipated future expenses, our recommendation is to increase your Reserve contributions to \$8,100/month. Annual increases are scheduled to help offset inflation and strengthen Reserves (see tables herein for details).

*officially called "Baseline Funding" **\$97,200 / year**

Association Reserves - AZ, LLC 10/25/2014

Association Reserves is an accredited organization that has performed over 25,000 reserves studies

They gave us an important wakening call. The results and recommendations stunned those in the know. The conclusions came as a shock I've seen no evidence that the study has been used to guide decisions of the HOA. I think the sentiment was to dismiss the study outright because they saw room to argue with some of the assessments

I have a totally different perspective.

AR gave us an import tool (they actually gave us a functional spreadsheet), the concepts and math are simple

They gave us a starting point: a fairly detailed component list, useful life for each component, and replacement cost estimates

We are now fully capable of performing calculations directly in NP Business model. No need to further contract with AR

I've read the educational literature on their web site, I've participated in several of their educational webinars.

I understand the motivation and philosophy of AR

The reserve study is only as good as its inputs

I've talked to Will Shafer directly. He performed our reserve study

I've had email exchanges with Robert Nordlund PE,RS Founder/CEO of Association Reserves

I understand the origins of some of the more "anomalous" entries in the reserve study I feel we are justified changing entries if we have a documented justification based on local data, operational experience, or an agreed upon strategy to lower costs or reduce maintenance

As a starting point, NP business model includes several such changes, sometimes to our benefit, sometimes not, but always more realistic

Others will be changed as part of our proposed management strategy

What's under the hood of a reserve study?



Reserve funds need to be set aside to cover annual deterioration and replace assets when their useful life has expired



- **Component:** Family car
- **Replacement cost:** \$30,000 (no salvage value)
- **Useful life:** 10 years
- **Reserve contribution:** you need to save \$3,000/yr in order to replace the car when its useful life has expired
- **Fully funded reserve balance:** After 3 years, you should have \$9,000 in your reserve fund
- **Reserve fund strength:** If you have only \$900 in the reserve fund, then your reserve fund strength is 10%
- **Plan:** Save more, replace with used car (i.e., change expectations), borrow from kids college fund, or demand a “contribution” from family members (i.e., special assessment)

AR did this for over 100 components and made adjustments for inflation




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Association Reserves - AZ, LLC 10/25/2014 22

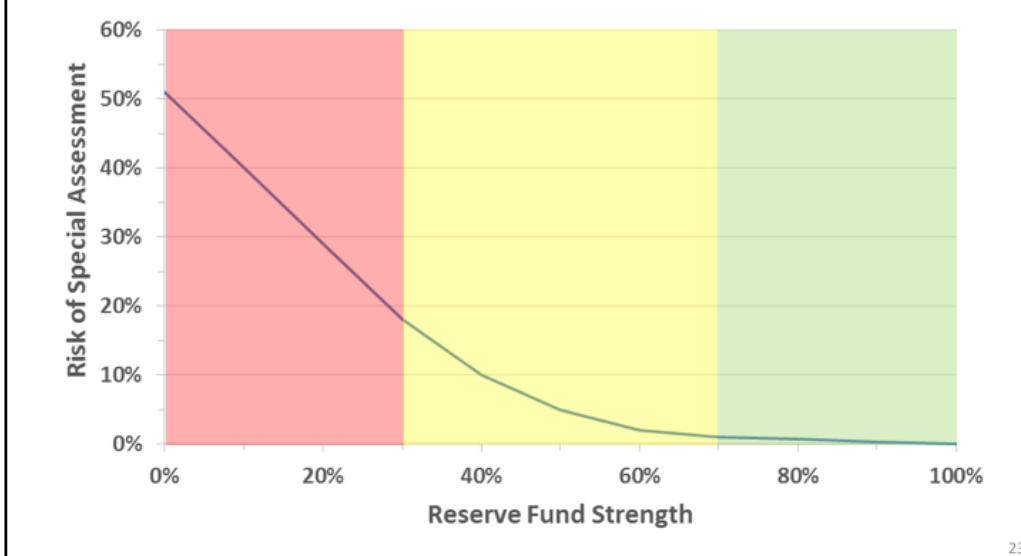
We have significantly expanded their capabilities

AR knew nothing about what income NP could realistically generate and AR knew nothing about operational shortfalls.

We've produced a more holistic assessment by integrating the reserve calculations into a model that includes our income streams and our operational/maintenance costs

We're in the process of implementing a capability to perform thousands of scenarios with different combinations of uncertain inputs

How often does AR recommend a special Assessment?



Question we want answered: what is the risk of a SA in the future based on today's RSF and an operational plan going forward

Risk curve based on over 25,000 reserve studies performed by AR
NP RSF=11% so SA risk about 38%. AR did not recommend a SA because NP had time to increase savings before major reserve costs were needed

This curve has to do with how often AR recommends a SA looking ahead a year or two when commissioned to do a reserve study

It DOES NOT represent the likelihood that our HOA will have a SA at any time in the future based on its reserve fund strength today and a funding plan

AR recommends a target reserve fund strength of 100%, but they rarely recommend SA if the reserve fund strength is over ~60% or 70%

Question: If your HOA has no money in the bank (i.e., the reserve fund strength is zero), how come the risk of special assessment is only 51% and not 100%

Answer: The curve has nothing to do with the risk of your HOA having a special assessment at some time in the future based on the reserve fund strength today. It has to do with how often AR recommends a SA when they commission a reserves study. If a HOA is relatively young when it commissions a reserve study and major reserve expense are far in the future, they have time to implement AR recommendations and

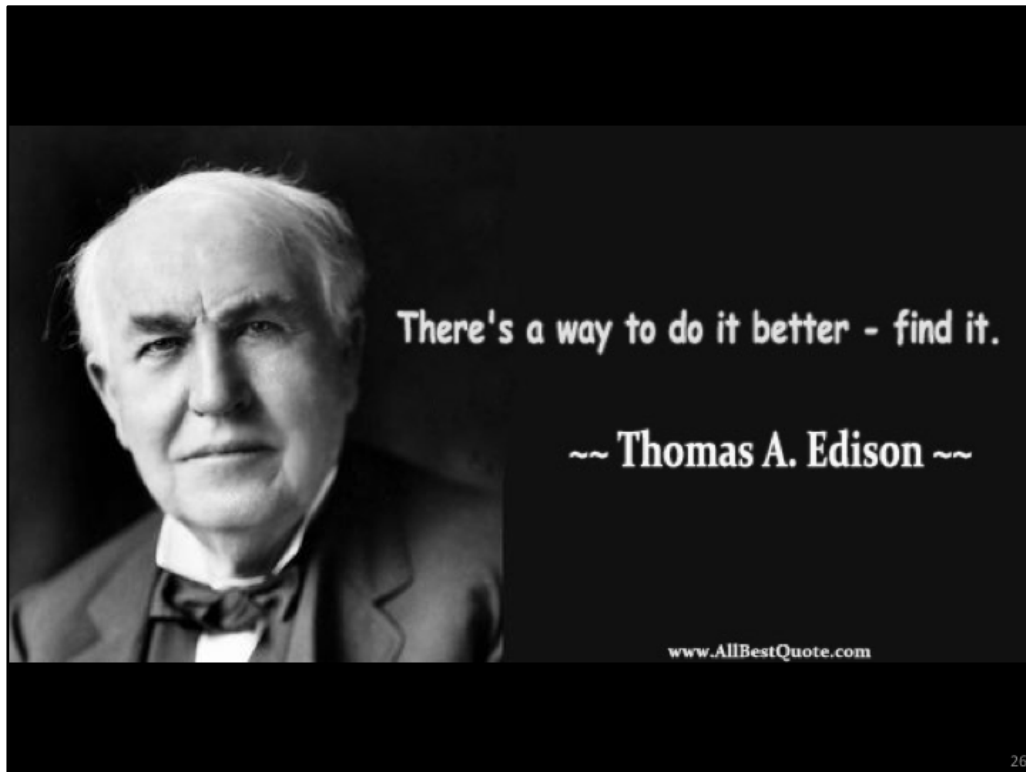
bring their reserve fund up to par. Of course, if a HOA has a reserve fund strength of 0% and they have a major reserve expense next year, the probability of a SA next year is 100%, not 51%



Do nothing is always an option...



But it will still hurt and likely makes things worse!



I've focused on managing with the current state as a starting point
I have not considered out-of-the-box ideas
I would encourage everyone to think creatively
There may be an even better way yet!

Manage expenses that matter



	30 Yr Savings
<ul style="list-style-type: none"> • Manage operational expenses <ul style="list-style-type: none"> • Embrace 5% utility conservation • Transition legal from conflict to operations • Transition wedding mgmt. to commission basis • Manage maintenance expenses <ul style="list-style-type: none"> • Reduce maintenance helper • Manage reserve expenses <ul style="list-style-type: none"> • Manage roads <ul style="list-style-type: none"> • Dedicate Aveneda Alegre to county • Execute recommended maintenance • Replace synthetic stucco with elastomeric paint • Replace playground with modest option • Refurbish fitness center rather than replace • Install or replace anode bags on propane tanks • Replace/refurbish furniture tbd 	<ul style="list-style-type: none"> \$ 89,000 \$650,000 \$495,000 \$616,000 \$170,000 \$109,000 \$400,000 \$275,000 \$ 36,000 <hr style="width: 100%; border: 0.5px solid green;"/> \$2,840,000

27

Start with big ticket items in the model
Listen to what community members suggest

Conservation: comes from the community

Legal: save \$13/yr

Wedding commission basis: reduce fixed costs as # weddings declines so profit margin is maintained

Maintenance helper: 22hr/wk to 4 hr/wk at \$12/hr

Roads: sealcoat based on Star quote from last year

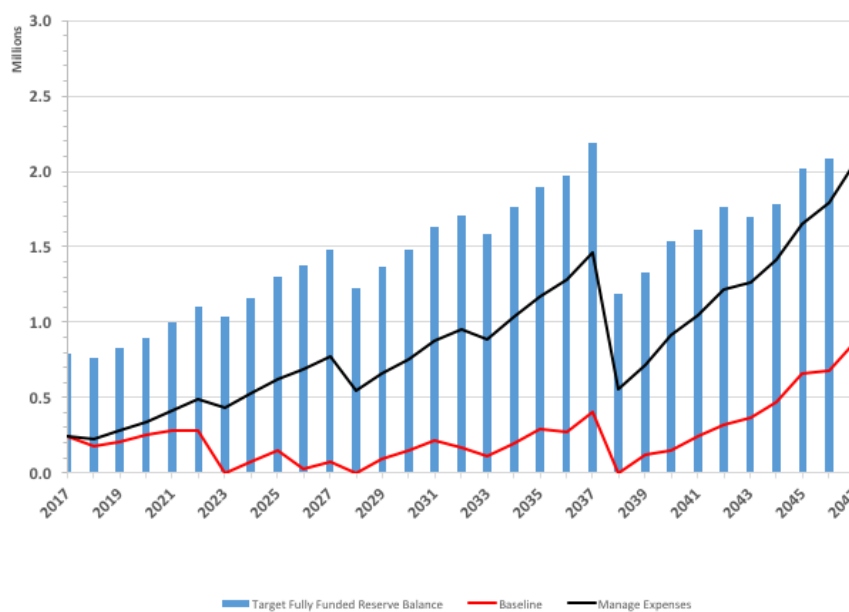
Stucco: \$85K UL=22yr to \$30K UL=12yr

Playground: \$70K UL=10 yr (was 35) to \$25K UL=15yr

Fitness center: \$138K new to \$53K refurbished

Propane tanks: AR \$18K UL=20 no maintenance to \$12K UL=30 replace bag every 5 yr at \$1K

Managing expenses that *matter* gives NP a viable future



Manage income



- **Invest cash reserves a little more boldly (~2%)**
- **Sell member weddings at cost + \$1000**
- **Adjust member event fees for past inflation (~\$6/person)**

29

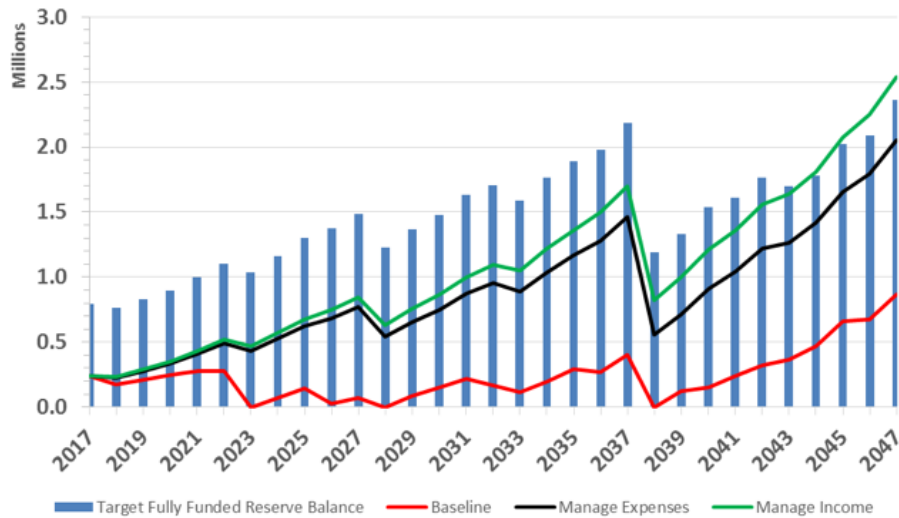
This assumes that you first did the best you can managing expenses per previous slide

Member weddings: “cost” includes wear and tear at the normal \$6/head per normal rules. In the past, I’m not sure we’ve recovered true cost + wear and tear for weddings

Adjust member event fees for inflation. Same criteria as in the past
However, I believe that we should review the entire pricing structure for member events and member weddings. Cost + wear and tear should be the operating principle unless the facility (or parts of the facility) are restricted from use by other members. Then members should pay a premium based on how much restriction and for how long.

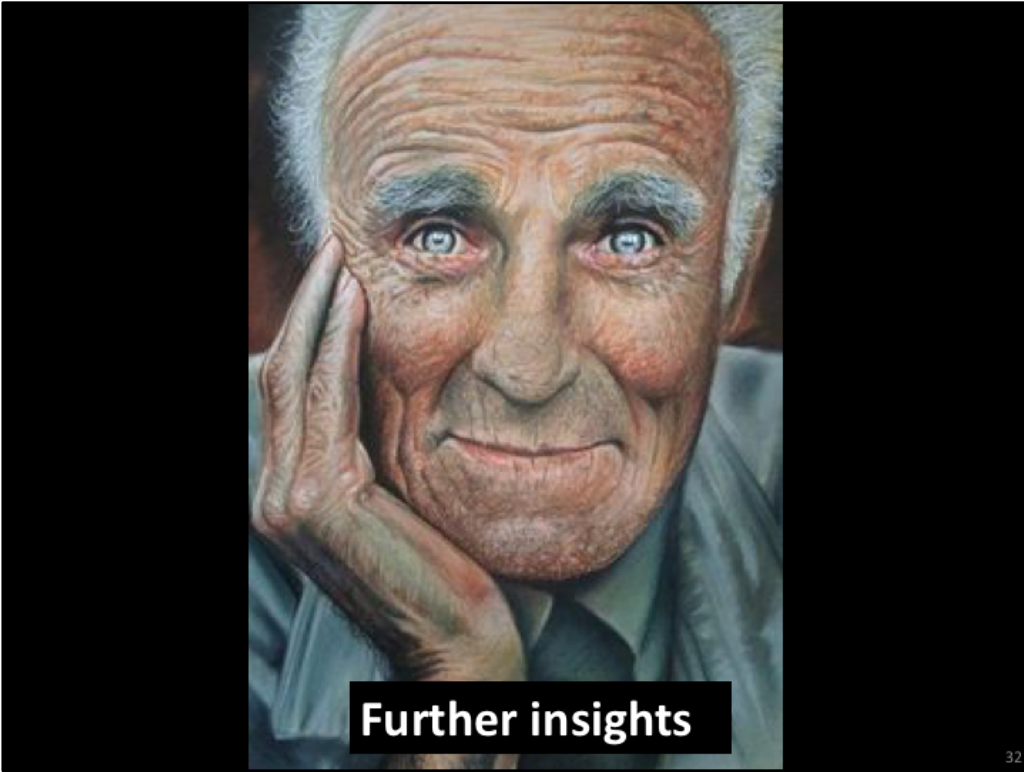
The second principle is that pricing should still be bargain
Just food for thought

NP *can* achieve a fully funded reserve balance....



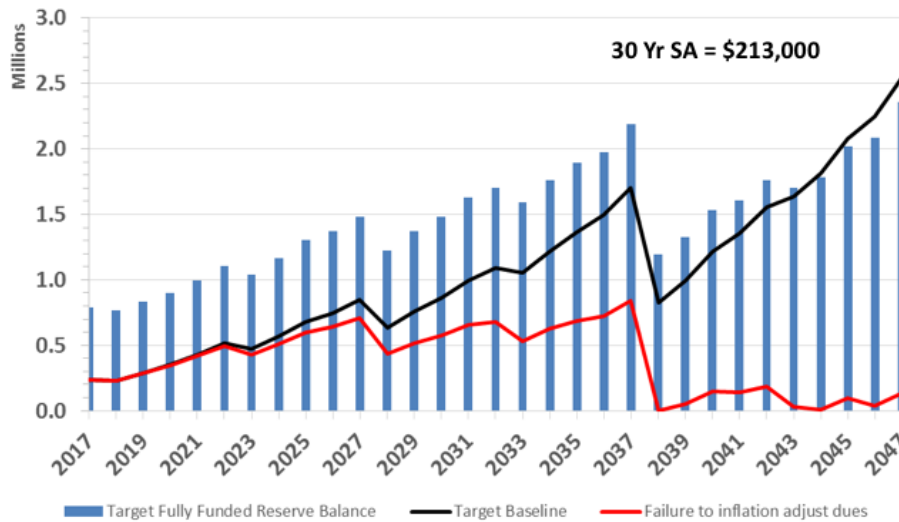
And almost no risk of special assessments!





Further insights

HOA dues must be inflation adjusted to avoid special assessments



33

Cost inflation happens, it is not a choice. That's the way we model it

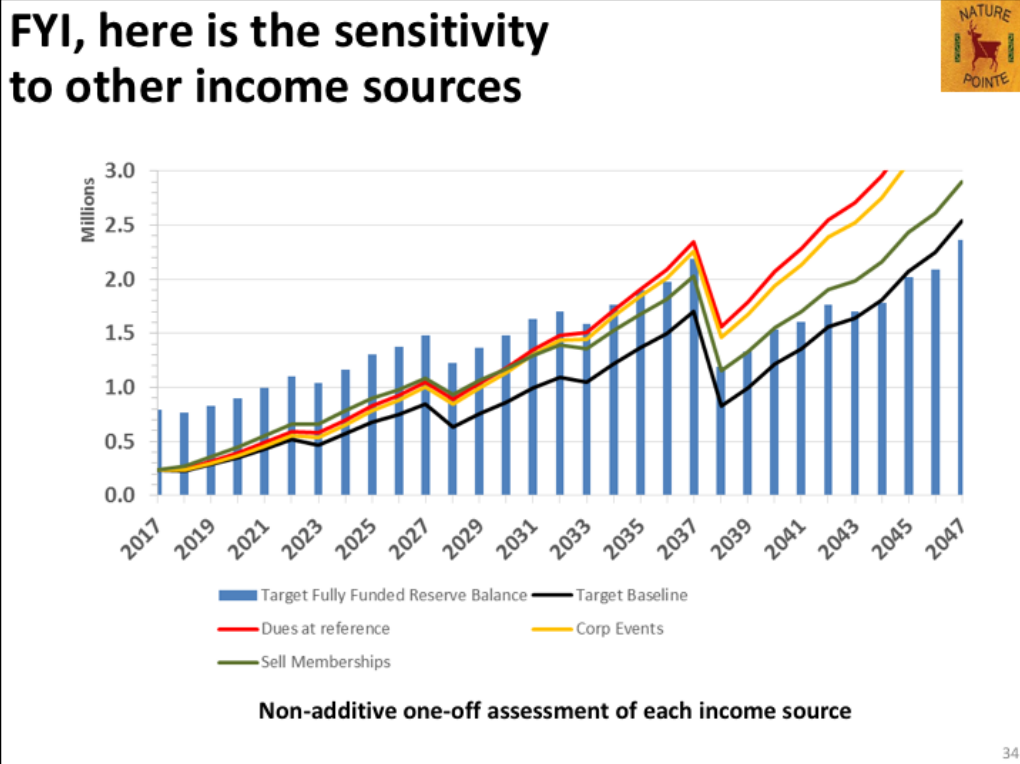
It should be an expectation that ALL sources of income will be inflation adjusted: weddings, dues, apartment rent, plan review fees, etc

Every year would be annoying, but maybe every 3 years (heads up for 2018)

Based on actual inflation for the previous 3 year

Income adjusted for inflation IS a choice, and the model gives you that choice

But we would be foolish not to periodically adjust dues for inflation

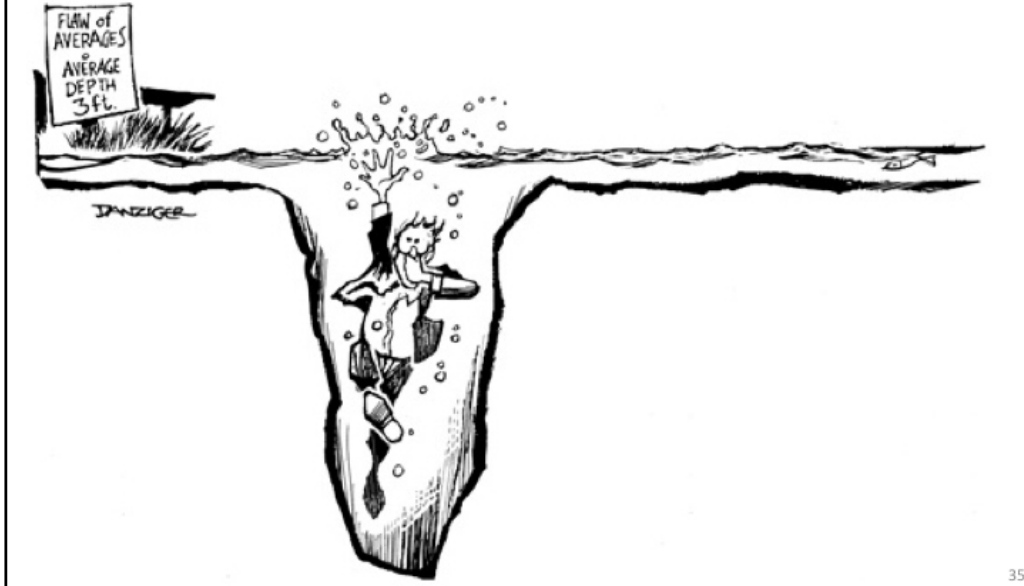


Dues at reference: 160/90 to 200/100

Sell corporate events: weddings will decrease by for every 3 lots sold. Back fill with corporate events limited by SUP limit of 12

Sell memberships: \$150/mo/membership, number = 112- number of homes, not much thought given to business model for this and applicable codes and laws

Future goal: Move away from average inputs and consider full spectrum of possible inputs



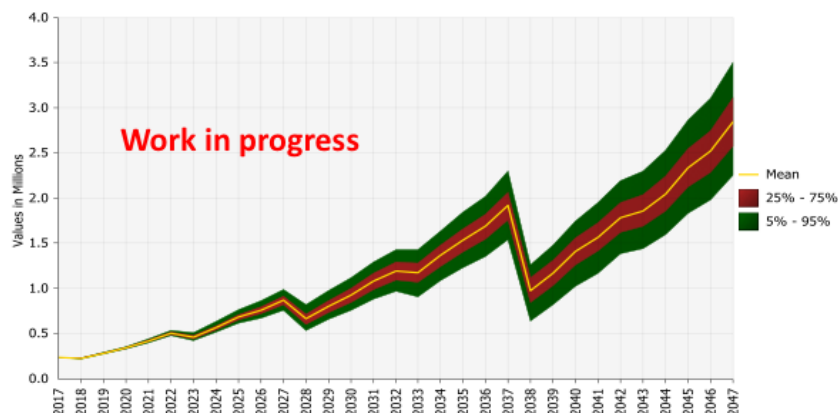
Current model: we use average or representative values for over 100 inputs

But all those inputs could reasonable take on my possible values , and some combinations could lead to disaster (i.e., SA's)

Don't leave it to chance, make decisions that are robust to variability



Monte Carlo methods used to evaluate
1000's of possible future states



36

There are hundreds of inputs to the model, and they are all uncertain i.e., growth assumptions, inflation, costs, useful lives, etc

What if you wanted to explore the impact of all that uncertainty on model predictions
You could vary each of the uncertain inputs one at a time, but its highly unlikely that only one uncertain input will deviate from its baseline
or you could vary two or more simultaneously if you wanted to, and keep a record of the results

Very very very tedious, and not very rigorous

We have coupled the NP Business model with software called @Risk

The software allows us to easily vary all of the uncertain inputs simultaneously and run thousands of scenarios with different combinations of uncertain input

The software summarizes all the results and presents them in useful plots (see graphic on the slide, this is an actual calculation ofr NP with only a limited number of uncertain inputs)

It could be that some combinations of uncertain inputs will lead to special assessments. The software will keep track of how often and how much those special assessments are

This gives us the ability to answer the question that AR *can not answer* (or anyone else for that matter)

Specific to Nature Pointe: given the reserve fund strength today, and a management

plan going forward, what is the risk (and magnitude) of special assessments in the future?

If the risk is too high, change the management plan!

What does it take to be sustainable?



Financial sustainability

- Realistic alignment of expectations and resources.
- You need a plan

Operational sustainability

- Break our dependence on heroic volunteerism
- Board needs to focus on the strategic “what’s” and get out of the business of managing “how’s” of day-to-day operations
- Document and archive processes, procedures, and important Board decisions (and the basis for those decisions)
 - Board meetings sometimes feel like “50 First Dates”
 - We are horribly inefficient at making decisions
- Avoid legal risks
 - Understand and comply with all applicable codes, laws, and SUP/mediation agreements
 - Avoid obvious liability traps

Consider

- Management company for HOA operations and maintenance
- Management company for HOA “event” sales and execution

37

Unfortunately, a move towards operational sustainability will likely but an added burden on financial sustainability

50 First Dates is a movie where the star, Drew Barrymore, wakes up every morning with no recollection of the day before and her boyfriend has to win her affections all over again

Understand and comply with all applicable codes and laws and SUP/mediation agreements (Chandelier brought up to code, recent fire marshal inspection addressed)

We are running a business now, and we can be shut down for non-compliance

Liability traps (we’ve been slowly eliminating traps: contractors vs employees, liability for community volunteers, etc). Still have issues

Playground is not code, and has had safety issues in the past

Attractive nuisances on NP property

Open gate(s) invite security problems

Developer does not have insurance

If you don't do something, you will end up
where you are headed -Lao Tzu-



38



“A good plan violently executed now is better than a perfect plan executed at some indefinite time in the future”

-General George S. Patton Jr.-

Nature Pointe Business Model

- **Use it now to make better informed decisions!**
- **Be transparent with the community**
- **Make it better as we go**

39

Desperately in need of heroic volunteers



- **Verify calculations in the model**
- **Research new options to reduce costs**
- **Research new options to generate added revenue**
- **Creative thinkers to identify alternate paths to a sustainable future with less or no weddings**
- **Research HOA management companies**
 - Operations and maintenance
- **Research options to contract wedding sales and staffing**