GEORGIA DOT RESEARCH PROJECT 19-18

FINAL REPORT

ASSESSING THE IMPACT OF FEDERAL REQUIREMENTS ON GDOT PROJECT PORTFOLIO

VOLUME II

OFFICE OF PERFORMANCE-BASED MANAGEMENT AND RESEARCH

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The Georgia Department of Transportation (GDOT) is responsible for the state's roads, bridges, interstate highways and other modes of transportation. In 2015, Georgia House Bill 170 (HB170) was enacted to create additional state revenue for transportation projects through a combination of new revenue sources (e.g., fuel, vehicle, and hotel taxes) and the elimination of certain tax breaks. Since its inception, HB170 funding has offered GDOT benefits such as increased flexibility in project delivery and the opportunity to deliver greater public benefit to citizens. Furthermore, GDOT has also been able to use HB170 to fund new projects managed entirely within a modified state process.

New administrative complexity was introduced alongside the benefits of HB170: GDOT had to make an initial decision on process and funding source – and revisit those decisions over time. GDOT felt a need to formalize and standardize the process and funding decisions, ensuring the right inputs were present early to make better decisions across the project lifecycle. To address that need, in the fall of 2019, GDOT undertook an effort to develop a new funding allocation process. This effort resulted in a Flow Chart Decision Tool that details the logic flow of project attributes and considerations that would result in a decision to: 1) follow a state process and use state funds, 2) follow a federal process and use federal funds, or 3) take a hybrid approach.

The research report consists of two volumes. Volume II consists of a compilation of all templates and guides that support the research methodology and findings to include: a) the interview guide, b) the postmortem template, c) the postmortem guide, and d) the launch guide.

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GDOT Research Project No. 19-18

Final Report

ASSESSING THE IMPACT OF FEDERAL REQUIREMENTS ON GDOT PROJECT PORTFOLIO

VOLUME II

By

McKinsey & Company, Inc

Contract with
Georgia Department of Transportation

In cooperation with
U.S. Department of Transportation
Federal Highway Administration

April 2020

SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.093	square meters	m^2
yd^2	square yard	0.836	square meters	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	square kilometers	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
		NOTE: volumes greater than 1000 L shall be shown in m^3		
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
		TEMPERATURE (exact degrees)		
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
		ILLUMINATION		
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	$candela/m^2$	cd/m^2
		FORCE and PRESSURE or STRESS		
lbf	poundforce	4.45	newtons	N
lbf/in^2	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.314	cubic feet	ft^3
m^3	cubic meters	1.307	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
		TEMPERATURE (exact degrees)		
°C	Celsius	1.8C+32	Fahrenheit	°F
		ILLUMINATION		
lx	lux	0.0929	foot-candles	fc
cd/m^2	$candela/m^2$	0.2919	foot-Lamberts	fl
		FORCE and PRESSURE or STRESS		
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

* SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380. (Revised March 2003)

LIST OF APPENDICES

APPENDIX A. INTERVIEW GUIDE

Interview guide: Project Post-Mortem

Draft

Prospective interview audience: GDOT leadership (e.g., Director of Program Delivery, Director of Engineering) and stakeholders who will own decision-making tool in the future (e.g., Planning team)

State vs. federal processes

- What are the key differences (real and perceived) today in the federal vs. state process?
- Are there "myths" or "habits" in project processes that are not rooted in the required state process but, rather, are completed to mimic the federal process?

State vs. federal funding decisions

- How are state vs. federal funding programming decisions made today? What is the set of criteria or decision tree? Who weighs in? What does the conversation involve? At what stage does it take place?
- What are the key moments at which having made one funding decision vs. another are most important (e.g., at funding programming decision at the start, at right-of-way acquisition, etc.)?
- Are project managers assigned to focus on federal funded projects vs. state funded projects? Are they assigned in a different way? Are any individual project managers known to be expert in one vs. other?
- What are key considerations today when GDOT attempts to maintain funding flexibility across sources?
- In your view, what "triggers" or "realizations" (e.g., realization of a historic preservation issue, interactions with Coast Guard as lead agency) cause the biggest impact in projects with federal funding?

Additional data and fact base

- What data could illustrate how federal money is allocated today (e.g., federal money associated with how many projects, which types of projects, average percentage of federal money on a project, etc.)?
- How did HB 170 impact GDOT's decision-making and processes? What is the background on the legislation, when did changes take effect, etc.?

Interview guide: Project Post-Mortem

Prospective interview audience: Individual project managers, planning team members, etc. who played a role in decision-making and execution for designated post-mortem project

Project timeline

- Where is the project today? At what point were critical decisions around funding made? Has the project faced any challenges since then that have impacted project cost, timeline, or administrative burden?
- Which stakeholders weighed in on funding decisions? What factors were considered to make the decision regarding federal vs. state funding?
- What was the expected timeline and cost for this project? What variance did it experience and what drove the variance?
  - Is there anything here so exceptional we should ignore it?
  - What of the different sub-stages (e.g. alternatives development) of each phase are contributing the most to delays?
- What are the key handovers? When do others in GDOT get involved?

Requirements and stakeholders?

- Following the funding decision, what stakeholders have been in the loop on subsequent decisions? Did new or previously unknown requirements surface that impacted cost, timeline, or administrative burden?
- What federal agencies were involved in the project? Who was the lead agency?

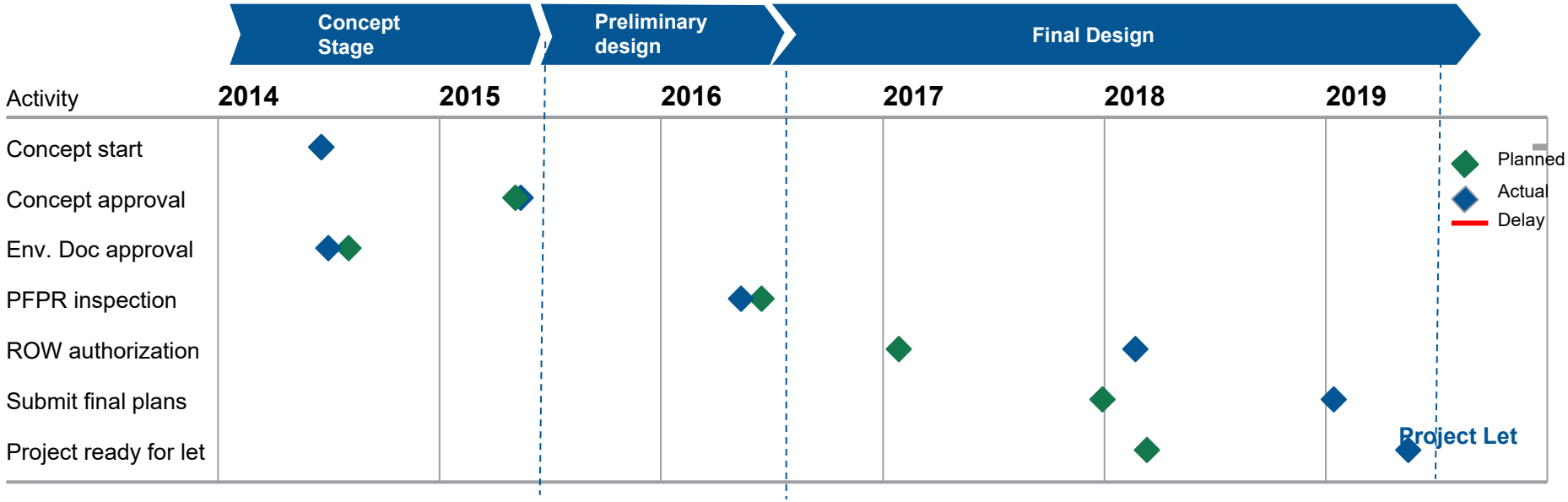
State vs. federal processes

- Were there steps of the process that you had to follow because you were trying to maintain flexibility to use federal money later?
- What process steps are typically most unpredictable or disruptive in terms of cost/time/paperwork impact? What are typical drivers of "difficult" projects and how does that vary by state vs. federal funding?
- Are there parts of the state process where you typically follow something informal or not written down?
- Can you provide any benefit/cost analysis that project managers completed for project justification?
- What materials / guides do you use for reference when working on a project?

Project post-mortem: [insert project name here (column b)]

Project type	Column E
Allocation decision	Column F – If "NEPA" then "Federally funded" If GEPA then, "State Funded" If switch, then "Started Federal, switched to State)
Reason for allocation switch	…
Where project falls on allocation decision scale	…

		Planned	Actual	Overrun
Schedule		COLUMN P e.g., March 2020	Column Q e.g., April 2020	**Calculate difference between P and Q in years (e.g., 1.5 years)**
Cost	Federal	…	*Awaiting BidX estimates*	
	State	…	*Awaiting BidX estimates*	-
	Total	Column I in $XM	*Awaiting BidX estimates*	-
Takeaways		▪ Delays on this project stemmed from … ▪ Federally imposed costs on this project were… ▪ Unnecessary paperwork stemmed from… ▪ Cost increases are driven by…		



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

Project post-mortem: [insert project name here (column b)]

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Column D	Given
Project contractor	Column M, if GDOT, then "GDOT"	PSR
NEPA/GEPA documentation and level	…	PSR
Amount of paperwork (H/M/L)	…	PM interview
Level of rework	…	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species fo	✗	PSR
Number of Alternatives	3	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

No changes the source of insight column

For, these, please refer to columns AS-AZ,

- Based on allocation decision scale, …would be "."

APPENDIX C. POSTMORTEM GUIDE

GDOT
Georgia Department of Transportation

Project post-mortems

JANUARY 21, 2020

Post-mortem status update

Level of review	#	Project description	Primary work type	Environmental process	Data received[1] and high-level review	PM interviewed
Deep dive	1	SR 82 Spur @ North Oconnee River	Bridge	Swapped to GEPA	Yes	Yes
	2	McCaysville Truck Bypass from SR 5 to SR 68 in TN	New Location	Started GEPA	Yes	Yes
	3	US 411 - Rome-Cartersville Development Corridor	New Location	NEPA	Yes	Yes
	4	Old Alabama Road Relocation from SR 113 to Paga Mine Road	Widening	NEPA	Yes	Yes
	5	SR 20 from Canton to Cumming	Widening	Swapped to GEPA	Yes	Yes
	6	I-20 @ SR 138	Interchange	NEPA	Yes	Yes
	7	CR 386/Fortson Road @ Standing Boy Creek	Bridge	NEPA	Yes	Yes
	8	SR 253 @ Spring Creek 12 MI SW Of Bainbridge	Bridge	Swapped to GEPA	Yes	Yes
	9	CR 784/Jerry Jones Dr/Eager Rd Baytree Rd To Oak St	Widening	Started GEPA	Yes	Yes
	10	CR 399/Old Wildcat Bridge Road @ Bluestone Creek	Bridge	Started GEPA	Yes	Yes
	11	CR 115/Cosby Road @ Brier Creek	Bridge	Started GEPA	Yes	Yes
	12	SR 334 @ Sandy Creek 11.5 MI SE Of Jefferson	Bridge	Swapped to GEPA	Yes	Yes
	13	SR 382 Ext From Cr 239 To SR 5/Sr 515 New Apd Corridor	New Location	Swapped to GEPA	Yes	Yes
	14	SR 92 From SR 3/US 41 To Glade Road	Widening	Swapped to GEPA	Yes	Yes
High level	15	Jonesboro Rd from W Of SR 3/US 41/Clayton to I-75/Henry	Widening	Swapped to GEPA	Yes	No
	16	I-75 NB CD System From SR 331 TO I-285	Interchange	NEPA	Yes	No
	17	Bouldercrest Road at I-285	Interchange	NEPA	Yes	No
	18	SR 8/SR 316/US 29 @ SR 53	Interchange	Swapped to GEPA	Yes	No
	19	SR 11/SR 49 @ Rocky Crk & Overflow @ Tobesofkee Crk & Overflow	Bridge	NEPA	Yes	No
No data		W Parallel Connector Hudson Bridge to Jonesboro Rd	New Location	Started GEPA	No	No
		CR 274/CS 1078/Lake Park Bellville Road from SR 7 to I-75	Widening	Started GEPA	No	No
				Total	**19**	**14**

1 Concept report and other data received

Key findings from selected project post-mortems and interviews

Category	Findings	Recommendations
Project attributes that can drive funding decisions	▪ **Projects should be tested against five sequential questions** to determine if there is a default funding decision: – Is it mandatory to use federal funds because of a federal grant, loan, or earmarked funds? – Is this project on or touching an interstate? – Does this project touch or impact federal land? – Does the project meet a hard-to-spend federal or state funding source? – Do you know the project attributes to a level to estimate the environmental document? ▪ **Projects should then be considered in terms of their attributes** as they relate to the federal vs. state process burden - these attributes include: – Number of alternatives available – Environmental document type – Location: Rural vs. urban location, new location – Logical termini (clear vs. unclear) – Level of public concern and/or controversy – 4F property (i.e. historic)	**A** Develop and **use funding allocation decision tool to inform initial project funding allocation and revise at stage gates** during project development
Funding related process improvements	▪ Coordination with federal agencies **adds to administrative burden and causes hard to predict rework** that does not change project outcome – *Example: US 411 Rome-Cartersville faced concept rework and environmental back-and-forth delays of 1 year*	**B** **Develop better working processes with federal agencies** (e.g., clear environmental agency roles and responsibilities in advance of concept report submission)
	▪ State funding of projects can enable **parallel processing on project development tasks to save time** – *Example: SR 82 Spur @ North Oconee River made up 200 days of delay and let according to original schedule*	**C** Use appropriate scoping and **parallel processing to reduce schedule on state projects**
	▪ **Improvement projects scheduled while original NEPA documentation was still valid experienced time savings in early stages of project work** – *Example: I-20 experienced time savings early in the project*	**D** **Keep track of how long projects are eligible for updates** without additional environmental review and track environmental expiration dates
	▪ Federally funded projects that stalled out in later stages can be **"brought back to life"** by state funds	▪ Review projects that have stopped for various reasons and **use funding allocation decision tool to determine whether they might proceed with state funds**
Other process improvements	▪ Although PMs transitions on projects are common, the **current handoff process can leave new PMs unclear on project status**	▪ **Add rigor to PM handoff process** (e.g., clearer, more consistent PM diaries and process updates)
	▪ **Projects that require bi-state agreements can experience** unnecessary delays to schedule – *Example: McCaysville bypass faces 200 days of additional delay because of lack of clarity on bi-state agreement progress*	**E** **Begin bi-state coordination and agreements early** to ensure other state buy-in and adherence to schedule; Determine if program-wide bi-state agreements would be beneficial

1 Project impact: SR 82 Spur @ North Oconee River 6.8 MI North of Jefferson

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
SR 82 Spur @ North Oconee River 6.8 MI North of Jefferson (bridge replacement, switched funding)	▪ Project faced **bridge rework** delays during concept phase ▪ The project **also faced minor delays due to the need for additional ROW** acquisition ▪ Concerted effort from the project and design team **allowed the project to let on time, despite initial delays**	▪ Project team was able to **obtain environmental approval ahead of schedule** – which would not have been possible on a federal project, because of critical path	C SR 82 offers a success story for **when to use state funds and how to parallel process to avoid normal delays**	▪ Project let on time and was able to effectively use state bridge bond funds in allocated fiscal year

1 Project post-mortem: SR 82 Spur @ North Oconee River 6.8 MI North of Jefferson

Project type	Bridge Replacement
County	Jackson
Allocation decision	Started Federal, switched to State
Environmental process	GEPA
Reason for allocation switch	Availability of state funds

Schedule

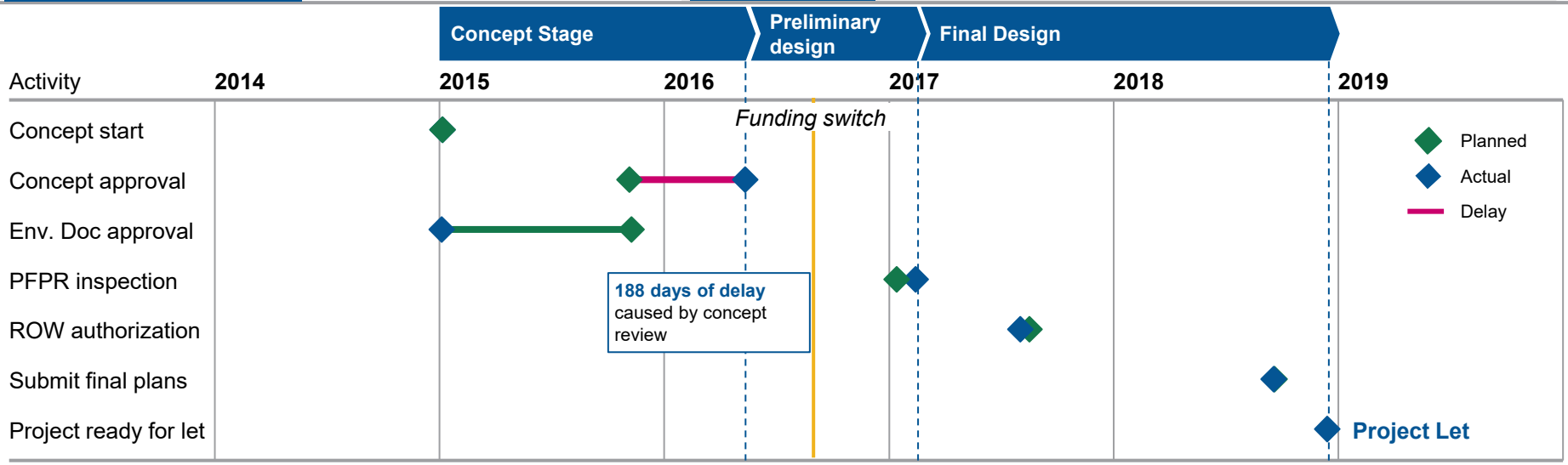
	Planned[1]	Actual[1]	Overrun
	December 2018	December 2018	**0 Years**

Cost

	Planned[1]	Actual[1]	Overrun
Federal	-	-	-
State	-	$4M	-
Total	$3M	$4M	$1M

Takeaways

- **Project team was able to obtain environmental approval ahead of schedule** – which would not have been possible on a federal project, because of critical path



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

1 Additional project factors: SR 82 Spur @ North Oconee River 6.8 MI North of Jefferson

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	McDonald, Travis S.	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	Low	PM interview
Level of rework	Low	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PSR
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

2 Project impact: McCaysville Truck Bypass from SR 5 to SR 68 in TN

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
McCaysville Truck Bypass from SR 5 to SR 68 in TN (new location, state)	▪ Project experienced delays when **community members adjacent to the proposed route suggested a new alignment** ▪ GDOT **reworked design and "need and purpose" to satisfy community needs** ▪ Further complication from requirement to execute a **bi-state agreement with Tennessee** and coordinate with **existing railroad** presence ▪ **Total delay: ~2 years**	▪ Project has experienced significant delay even though state-funded ▪ Highlights importance of making correct state/federal funding decision – **had this project been federalized, there would have been additional delays** (1+ year) and chance of project being shelved due to **community "need and purpose" conflicting with federal alternatives analyses**	A **Projects in new locations should be prioritized for state funding** because they will likely face complex alternatives analyses E **Begin bi-state coordination and agreements early** to ensure other state buy-in and adherence to schedule; Determine if program-wide bi-state agreements would be beneficial	▪ Up to 1+ year saved from use of state funds

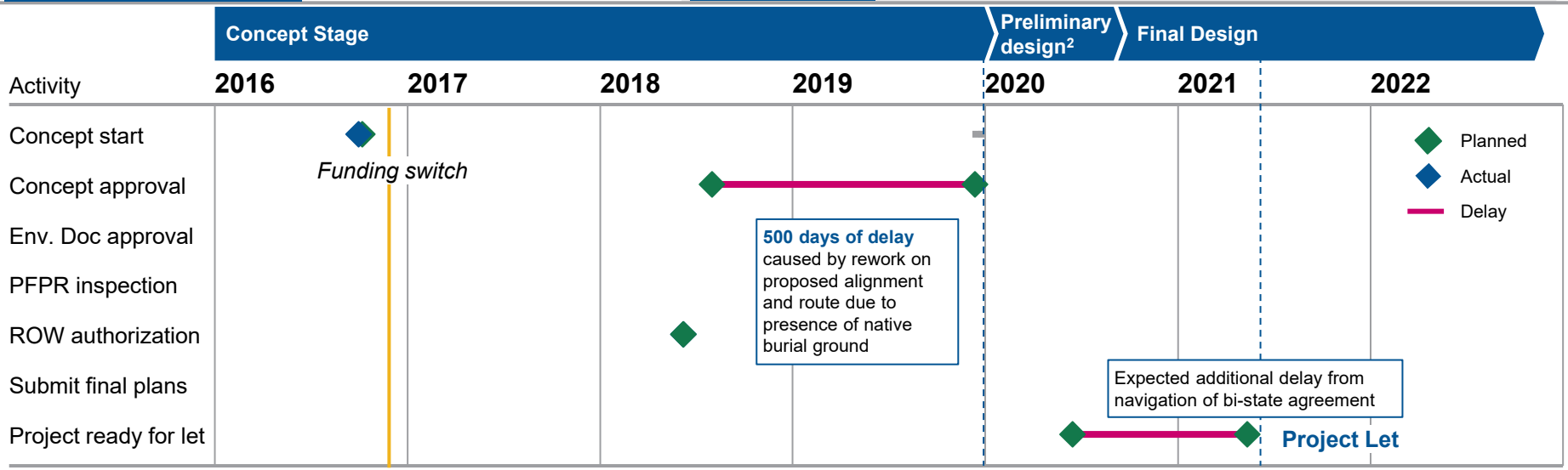
2 Project post-mortem: McCaysville Truck Bypass from SR 5 to SR 68 in TN

Project type	New location
County	Fannin County, GA Polk County, TN
Allocation decision	Started Federal, switched to State
Environmental process	GEPA
Reason for allocation switch	Acceleration of project delivery

		Planned[1]	Actual[1]	Overrun
Schedule		June 2020	May 2021	**1.9 years**
Cost	Federal	-	-	-
	State	-	$44.8M	-
	Total	-	$44.8M	*Concept report not approved*

Takeaways

- Project prioritized but **still experiencing significant delay: 500 days from rework on proposed route**
- Bi-state agreement and railroad coordination is expected to add **200 days of additional delay**
- If federally funded, **it would have faced additional delays from environmental considerations**



1 Concept start through Project Let
2 Estimated timeline

SOURCE: GDOT project data: PSR, Concept Report

2 Additional project factors: McCaysville Truck Bypass from SR 5 to SR 68 in TN

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Burney, Cynthia	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	High	PM interview
Level of rework	High	PM interview
Historic property on site?	✓	PM interview
Clear logical termini?	✓	PM interview
Endangered Species found?	✓	PM interview
Number of Alternatives completed?	2	PM interview
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	PM interview
Mandated to be federal?	✗	PM interview

3 Project impact: US 411 – Rome Cartersville Development Corridor

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
US 411 Rome Cartersville Development Corridor (new location, federal)	▪ Need identified in 1970s but shelved due to lack of funding ▪ PE began in 2008 but halted in 2013 because of an **environmental obstacle** (abandoned mine). Scoping to reinitiate work began in 2015 ▪ Project has environmental (e.g., flood plain) and historical (e.g., archeological resources) impacts ▪ Project impacts an interchange – and thus, requires federal process ▪ **Total delay: anticipated ~2 years from the 2015 plan**	▪ Federally required alternative analysis caused **2 years of delay in advance of concept start** (April 2015 – June 2017) before initial concept work began ▪ **Additional 1 year delay caused by rework on project assumptions** to fit federal requirements	▪ GDOT has two options for improvement when deciding how large ($100M+), complex projects should be funded **A** **Fund environmentally and archeologically complex projects with state funds,** acknowledging the project size represents a larger share of state budget **E** **Improve working processes with federal agencies** (e.g., Co-located Environmental Quality group)	▪ 2 years of savings possible through: – Reducing/ **removing iteration cycle with federal agencies** – Reducing/ **eliminating time 2-year alternatives analysis**

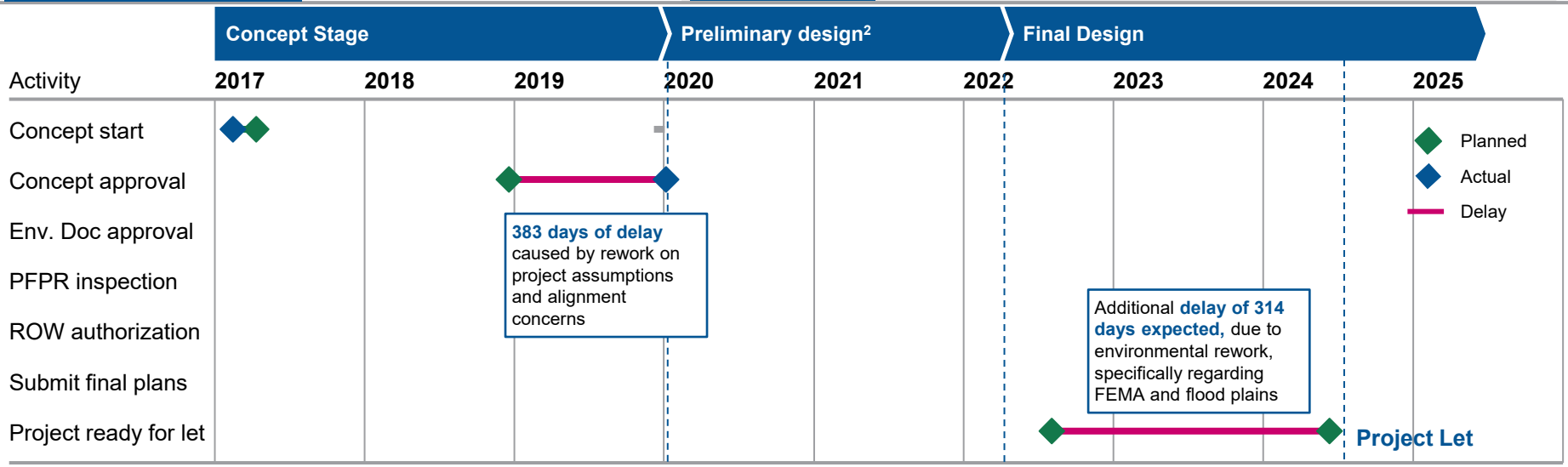
3 Project post-mortem: US 411 – Rome-Cartersville Development Corridor

Project type	New Location
County	Barlow
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		August 2022	June 2024	**1.9 Years**
Cost	Federal	-	$34M	-
	State	-	$88M	-
	Total	$116M	$122M	$6M

Takeaways

- Federally required alternative analysis caused **2 years of delay in advance of concept start** (April 2015 – June 2017) before initial concept work began
- **1 year delay caused by rework on project assumptions** to fit federal requirements
- **1 year** of environmental delay is expected



1 Concept start through Project Let
2 Estimated timeline
SOURCE: GDOT project data: PSR, Concept Report

3 Additional project factors: US 411 – Rome-Cartersville Development Corridor

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	White, Davida	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	NEPA, EA	PSR
Amount of paperwork (H/M/L)	High	PM interview
Level of rework	Medium	PM interview
Historic property on site?	✓	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	Concept report
Number of Alternatives completed?	10	Concept report
Clearly affects existing federal project	✓	PM interview
Wetland or water effects?	✓	Concept report/PSR
Mandated to be federal?	✗	Concept report/PSR

4 Project impact: Old Alabama Road Relocation from SR 113 to Paga Mine Road

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
Old Alabama Road Relocation from SR 113 to Paga Mine Road (widening, federal)	▪ Concept work began in 1990 and progressed slowly through federal process, until **switching to state funding in 2016** ▪ **GDOT used available state funds "to resuscitate the project"** – but will still need to update environmental document and follow relevant federal processes	▪ Expected **delay of 2.5 years** to project let, likely from required update to environ-mental document	▪ **Projects that are mandated to be federal or already have a NEPA document should max out on federal funds**	▪ Without state funds, unlikely that this project would be able to be delivered in upcoming years

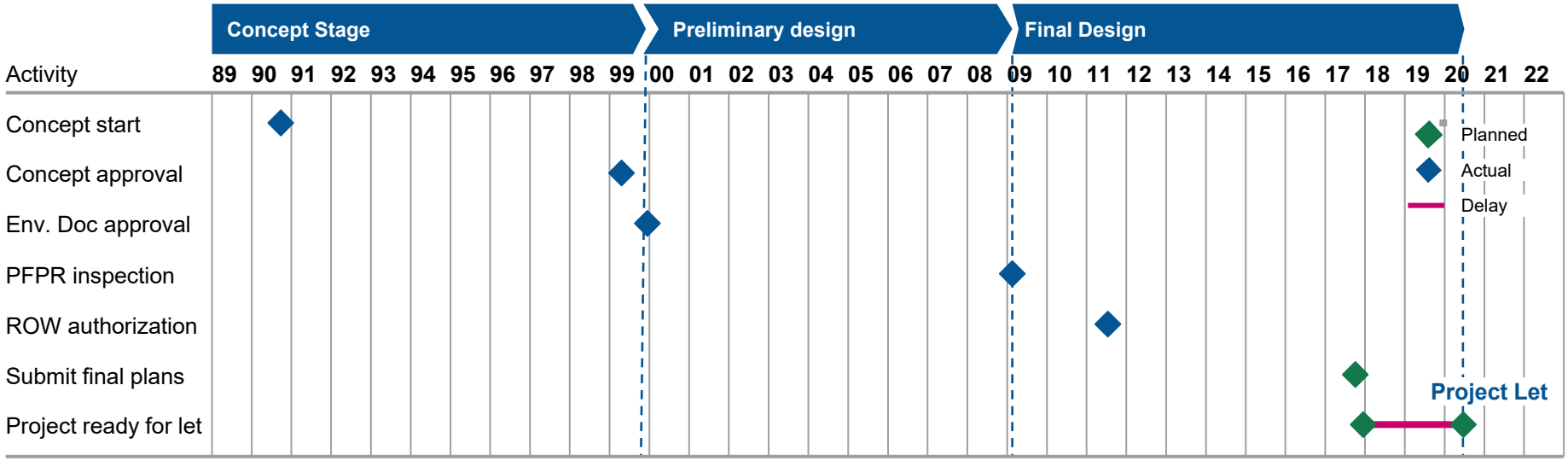
4 Project post-mortem: Old Alabama Road Relocation from SR 113 to Paga Mine Road

Project type	Widening
County	Bartow
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		December 2017	May 2020	3.5 years
Cost	Federal	-	$79.5M	-
	State	-	$19.5M	-
	Total	$70M	$99M	$29M

Takeaways

- **Max out federal funds on projects that are mandatory to be federal or have a NEPA document**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

4 Additional project factors: Old Alabama Road Relocation from SR 113 to Paga Mine Road

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Burney, Cynthia Igbalajobi, Theo	Given
Consultant or in house	Locally designed	PSR
NEPA/GEPA documentation and level	NEPA, EA	PSR
Amount of paperwork (H/M/L)	Not available	PM interview
Level of rework	Not available	PM interview
Historic property on site?	✓	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✓	PSR
Number of Alternatives completed?	0	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

5 Project impact: SR 20 from Canton to Cumming

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
SR 20 from Canton to Cumming (widening, switched funding)	▪ SR 20 represents one large project split into five smaller projects (five PI #s) ▪ In 2016, project team decided to **pursue a 6 lane solution at an additional cost of $45M** to better meet project need ▪ **Switching to state funding mitigated anticipated process burden** from historic properties and residences along proposed route ▪ However, **project still faced delays from a lengthy procurement process** for out-of-scope items and ROW revisions	▪ If federally funded, **added burden from environmental analysis would have been 5+ years of delay** ▪ If federally funded, **logical termini issues would stop project from being broken up into manageable smaller projects**	**A** **Fund environ-mentally and archeologically complex projects with state dollars,** acknowledging that it's a large portion of the state budget **C** **Be cautious of ROW acquisition too early in process** for state projects	▪ By switching from federal to state funding, (and eliminating the Environmental Impact Statement (EIS)), **improvements to SR 20 began years earlier** ▪ **5+ years of possible savings by switching funding allocation source**

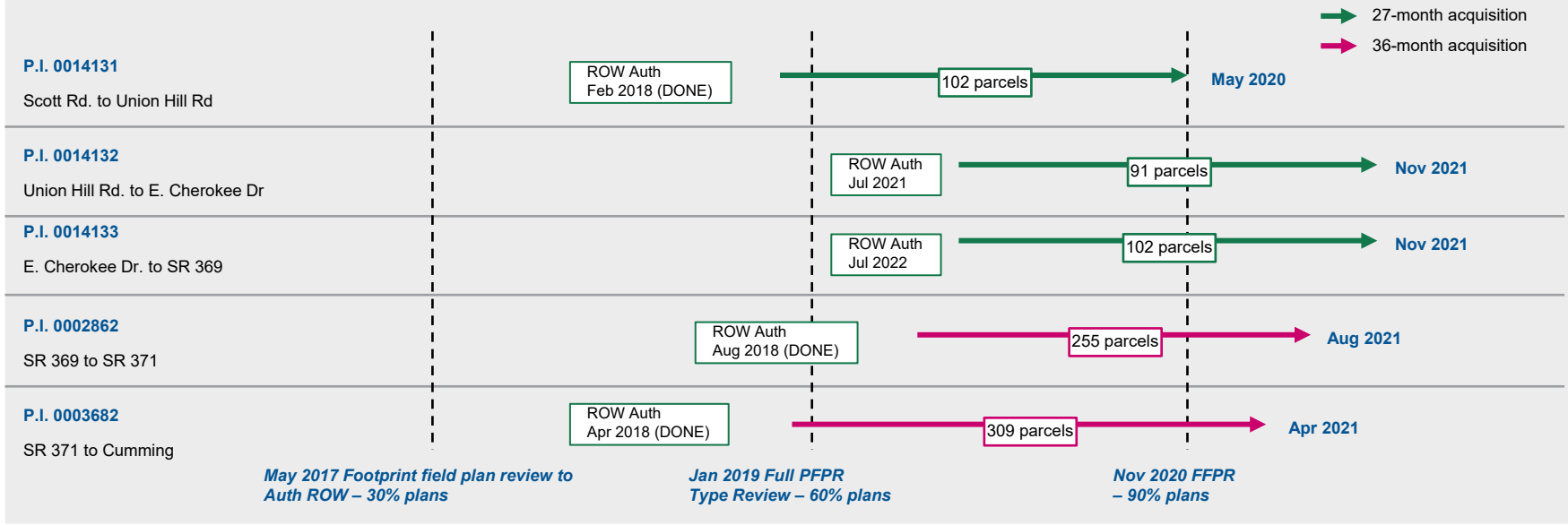
5 Project post-mortem: SR 20 from Canton to Cumming

Project type	Widening – broken into 6 smaller projects (six PI #s)
County	Cherokee & Forsyth
Allocation decision	Started Federal, switched to State
Environmental process	GEPA
Reason for allocation switch	Project complexity required EIS and would have taken many additional years to complete

Project cost

PI #	Planned	Actual	Overrun
0003682	$127M	$141M	$14M
0002862	$130M	$136M	$6M
0014132	$53M	$71M	$18M
0014131	$40M	$46M	$6M
0014133	$41M	$44M	$3M
0003681	*Concept report not available*	$25M	*N/A*
Total	**$391M+**	**$419M+**	**$31M+**

Project schedule



6 Project impact: I-20 @ SR 138

Project name	Project summary	Key issues and funding-specific challenges	What can be done differently	Impact
I 20 @ SR 138 (interchange, federal)	▪ Project affects a federal interstate and **must be federally funded** ▪ Project faced initial delays over **deliberation of interchange bridge alternatives** ▪ SR 20 leading into the area must undergo a shift in alignment, **requiring additional ROW acquisition** ▪ Some **components of NEPA – CE documents were still valid from 2015**, which allowed environmental process to start ahead of schedule	▪ 261 days of non-funding related delay concept rework on preliminary design to access point alternatives analysis ▪ 275 days of additional delay expected from **federal administrative burden and back-and-forth**	B **Improve working processes with federal agencies** (ex., Co-located Environmental Quality group) D **When updates and changes can be made to federal projects within the NEPA window, it can streamline early environmental approval** – though may need updates before project let	▪ Up to 275 days saving possible from improved working processed with federal agencies

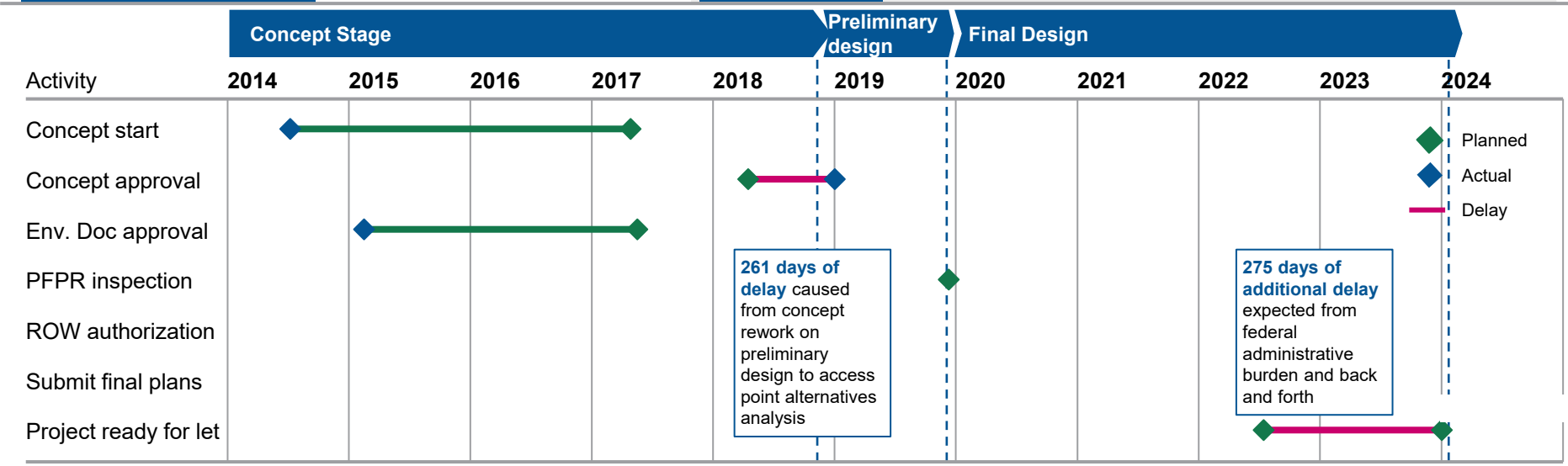
6 Project post-mortem: I-20 @ SR 138

Project type	Interchange
County	Rockdale
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		July 2022	January 2024	1.5 years
Cost	Federal	-	-	-
	State	-	-	-
	Total	$65.5M	$72.4M	$6.9M

Takeaways

- **Project was able to start environmental approval process ahead of schedule because some components of the NEPA document were still valid**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

6 Additional project factors: I-20 @ SR 138

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Black, Perry	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	NEPA, EA	PSR
Amount of paperwork (H/M/L)	Medium	PM interview
Level of rework	Low	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PSR
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✓	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

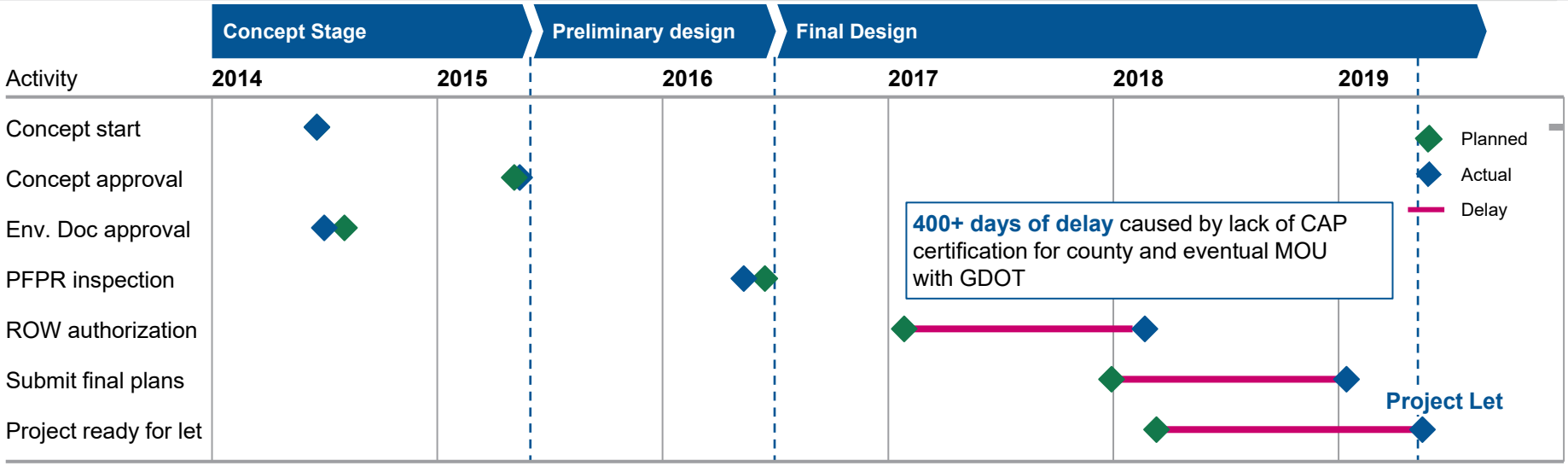
7 Project post-mortem: CR 386/Fortson Road @ Standing Boy Creek

Project type	Bridge Replacement
County	Harris County
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		Mar 2018	May 2019	**1.1 years**
Cost	Federal	-	$3.0	-
	State	-	$0.2M	-
	Total	$2.9M	$3.2M	$0.3M

Takeaways

- **Delays can be avoided by educating counties on necessary federal compliance measures**



1 Planned: Concept start Actual: through Project Let

SOURCE: GDOT project data: PSR, Concept Report

7 Project delay deep dive: CR 386/Fortson Road @ Standing Boy Creek

	Project phase	Delay (days) Net[1]	Delay (days) Total[2]	What we've heard	Parties involved	Potential opportunity
Concept Stage	Concept approval delay	N/A	N/A	N/A	N/A	N/A
	Environmental approval delay	N/A	N/A	N/A	N/A	N/A
Preliminary design	PFPR Delay	N/A	N/A	N/A	N/A	N/A
Final Design	Row Authorization Delay	390	390	▪ Harris County was responsible for the ROW authorization – however, Harris County lacked the appropriate federally required CAP certification to do so ▪ Harris County signed an MOU with GDOT so that GDOT could purchase the ROW on their behalf	▪ PM	▪ If counties will be contributing to projects that utilize federal funds, they must be appropriately certified before the ROW authorization process
	Submission of final plans delay	-9	381	N/A	N/A	N/A
	Delay to project let	50	**431**	N/A	N/A	N/A

1 Change of duration in each project phase, 2 Cumulative delay

7 Additional project factors: CR 386/Fortson Road @ Standing Boy Creek

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Contracted: Derrick Cameron	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	NEPA, CE	PSR
Amount of paperwork (H/M/L)	Medium	PM interview
Level of rework	High	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PSR
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

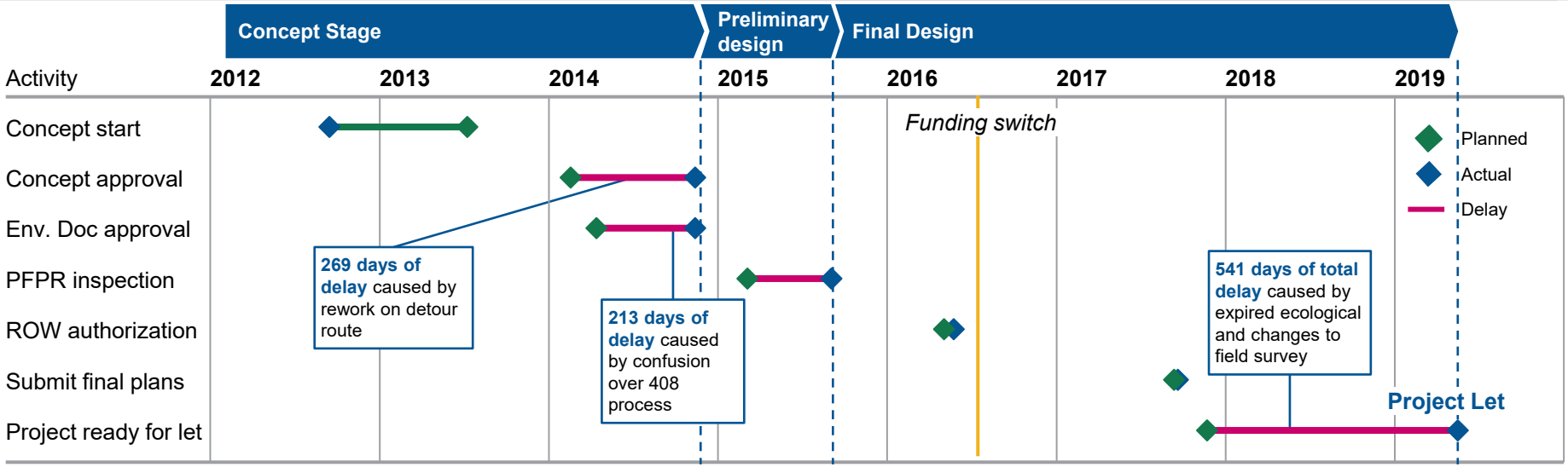
8 Project post-mortem: SR 253 @ Spring Creek 12 MI SW of Bainbridge

Project type	Bridge Replacement
County	Decatur County
Allocation decision	Started Federal, switched to State
Environmental process	NEPA
Reason for allocation switch	Significant delay caused by environmental concerns and complexity

		Planned[1]	Actual[1]	Overrun
Schedule		Nov 2017	May 2019	**1.5 years**
Cost	Federal	-	$1.4M	-
	State	-	$9.9M	-
	Total	$5.1M	$11.3M	$6.2m

Takeaways

- **Tracking expiration dates** of required studies for projects that experience significant delay and **starting required rework earlier** is important to prevent delay



1 Planned: Concept start Actual: through Project Let

SOURCE: GDOT project data: PSR, Concept Report

8 Project delay deep dive: SR 253 @ Spring Creek 12 MI SW of Bainbridge

	Project phase	Delay (days) Net[1]	Total[2]	What we've heard	Parties involved	Potential opportunity
Concept Stage	Concept approval delay	269 (concurrent with env. approval)	269 (concurrent with env. approval)	▪ Rework of detour route caused by: - Proposed detour exceeded 20 mi and closing of bridge during construction period - Solution ensured that bridge could be open one way and wide enough to accommodate farming traffic during construction	▪ Engineering ▪ PM	▪ Original concept report should meet GDOT defined standards for public impacts, such as preferred detour solutions
	Environmental approval delay	213 (concurrent with concept approval)	213 (concurrent with concept approval)	▪ Environmental considerations prompted discussion about needing to follow specific US Corp. 408 processes - Environmental staff did not know how to go about this process - Rapid turnover at Corps. Added unnecessary time to this process - Eventually did not need to follow 408	▪ Environmental Services	▪ Environmental staff should be trained to handle one off situations ▪ Guidelines for when to follow specific processes should be clear to all staff
Preliminary design	PFPR Delay	-32	181	▪ N/A	N/A	N/A
Final Design	Delay to project let	541	**360**	▪ Rework was required because: - The environmental study had expired - Elements of the field study had changed	▪ PM ▪ Engineering ▪ Environmental services	▪ For projects that experience significant delay, PMs should track expiration dates and ensure that field survey changes are appropriately captured and additional delay is prevented

1 Change of duration in each project phase, 2 Cumulative delay

8 Additional project factors: SR 253 @ Spring Creek 12 MI SW of Bainbridge

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Contracted: Derrick Cameron	Given
Consultant or in house	Turkey Consultant	PSR
NEPA/GEPA documentation and level	GEPA CE required	PSR
Amount of paperwork (H/M/L)	High	PM interview
Level of rework	High	PM interview
Historic property on site?	✓	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✓	PSR
Number of Alternatives completed?	5	Concept report
Clearly affects existing federal project	✗	Concept report
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

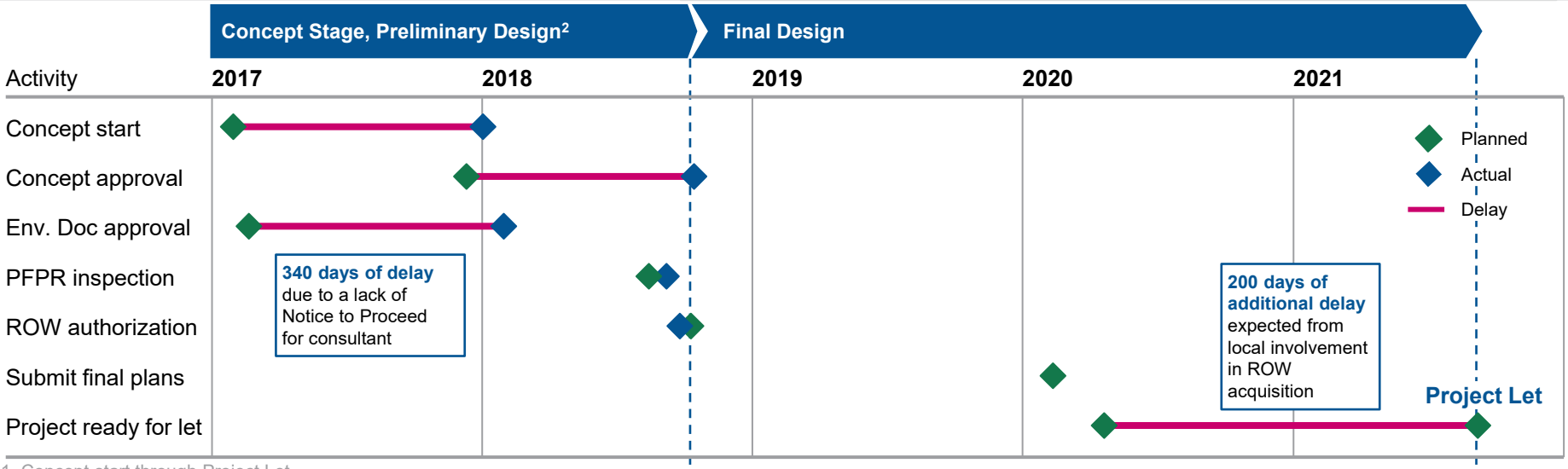
9 Project post-mortem: CR 784/Jerry Jones Dr/Eager Rd Baytree Rd To Oak St

Project type	Widening
County	Lowndes
Allocation decision	State funded
Environmental process	GEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		April 2020	September 2021	1.3 years
Cost	Federal	-	-	-
	State	-	-	-
	Total	$15M	$23M	$8M

Takeaways

- Consultant contracts not being finalized and **Notice to Proceed not being issued should be identified as a risk to project timeline**
- **County's ability to pay for ROW should be verified before project start**



1 Concept start through Project Let
2 Estimated timeline
SOURCE: GDOT project data: PSR, Concept Report

9 Additional project factors: CR 784/Jerry Jones Dr/Eager Rd Baytree Rd To Oak St

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Lovett, Christy	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	Medium	PM interview
Level of rework	High	PM interview
Historic property on site?	✓	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PSR
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✗	Concept report
Mandated to be federal?	✗	Concept report/PSR

10 Project post-mortem: CR 399/Old Wildcat Bridge Road @ Bluestone Creek

Project type	Bridge Allocation
County	Madison
Allocation decision	State funded
Environmental process	GEPA
Reason for allocation switch	N/A

Schedule

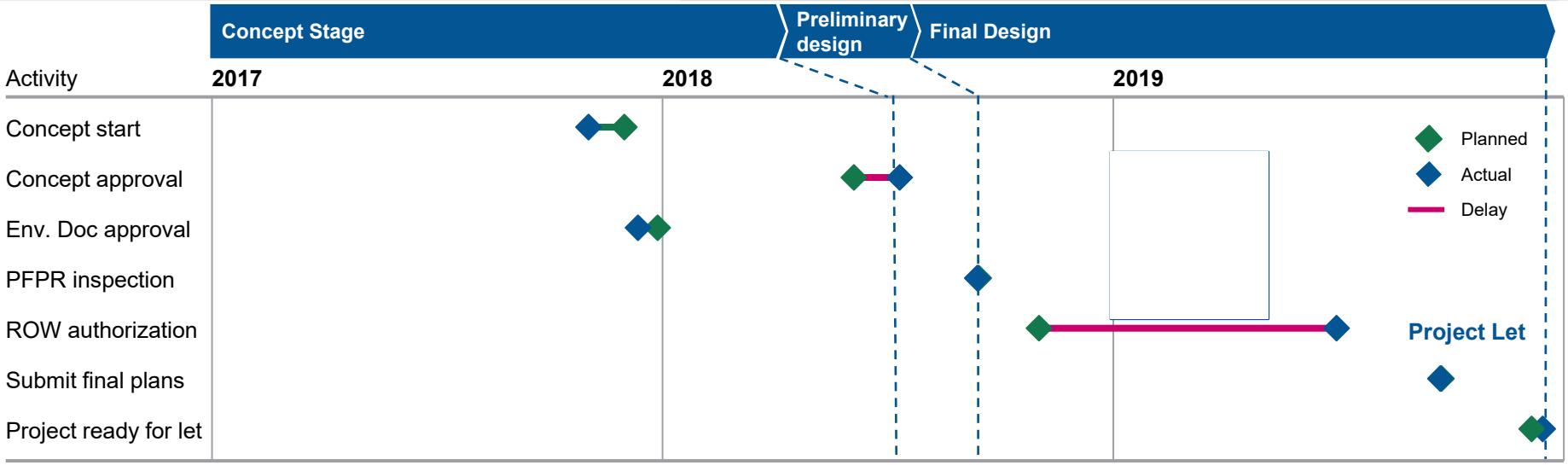
	Planned[1]	Actual[1]	Overrun
	December 2019	December 2019	-

Cost

	Planned[1]	Actual[1]	Overrun
Federal	-	-	-
State	-	$0.5M	-
Total	$2.4M	$0.5M	[$1.9M]

Takeaways

- **Design phase was able to make up this delay in order for the project in let in allocated fiscal year**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

10 Additional project factors: CR 399/Old Wildcat Bridge Road @ Bluestone Creek

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Pritchard, Justin	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	Medium	PM interview
Level of rework	Low	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✓	PSR
Number of Alternatives completed?	2	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

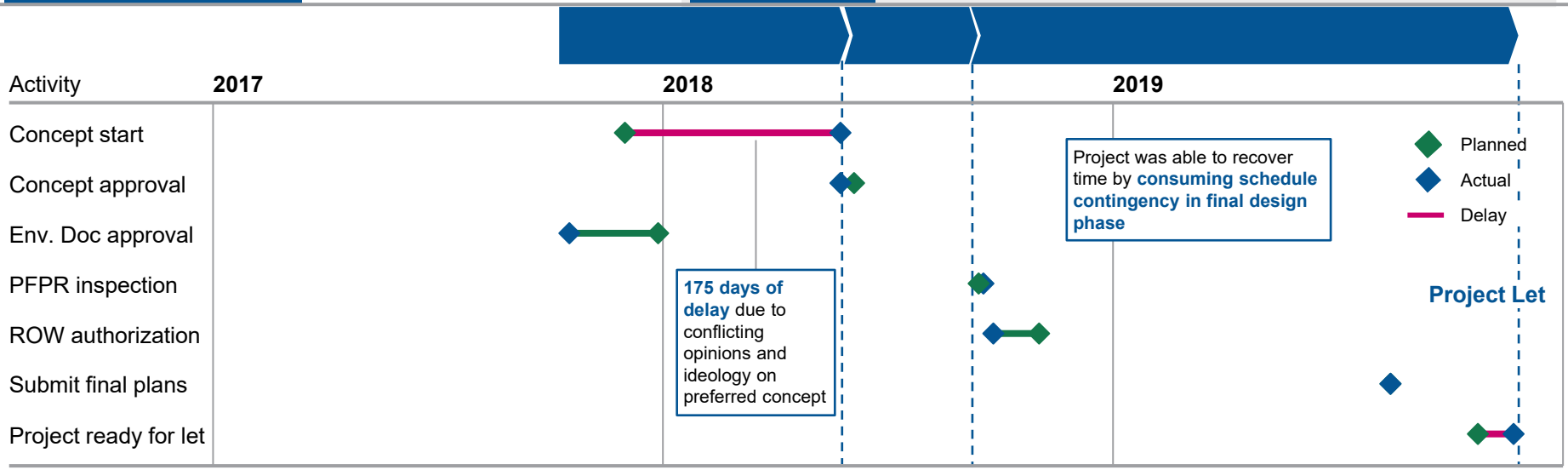
11 Project post-mortem: CR 115/Cosby Road @ Brier Creek

Project type	Bridge Replacement
County	Warren
Allocation decision	State funded
Environmental process	GEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		October 2019	November 2019	**0.1 year**
Cost	Federal	-	-	-
	State	-	$0.41M	-
	Total	$0.4M	$0.41M	$0.01M

Takeaways

- **Bridge projects can face delays to concept start due to complex alternatives analysis and information gathering** (e.g., H&H study)
- **Schedule contingencies in final design phase can be used to make up earlier delays**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

11 Additional project factors: CR 115/Cosby Road @ Brier Creek

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Pritchard, Justin	Given
Consultant or in house	GDOT	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	Medium	PM interview
Level of rework	Low	PM interview
Historic property on site?	X	Concept report
Clear logical termini?	X	Concept report
Endangered Species found?	X	PSR
Number of Alternatives completed?	1	Concept report
Clearly affects existing federal project	X	PM interview
Wetland or water effects?	X	Concept report
Mandated to be federal?	X	Concept report/PSR

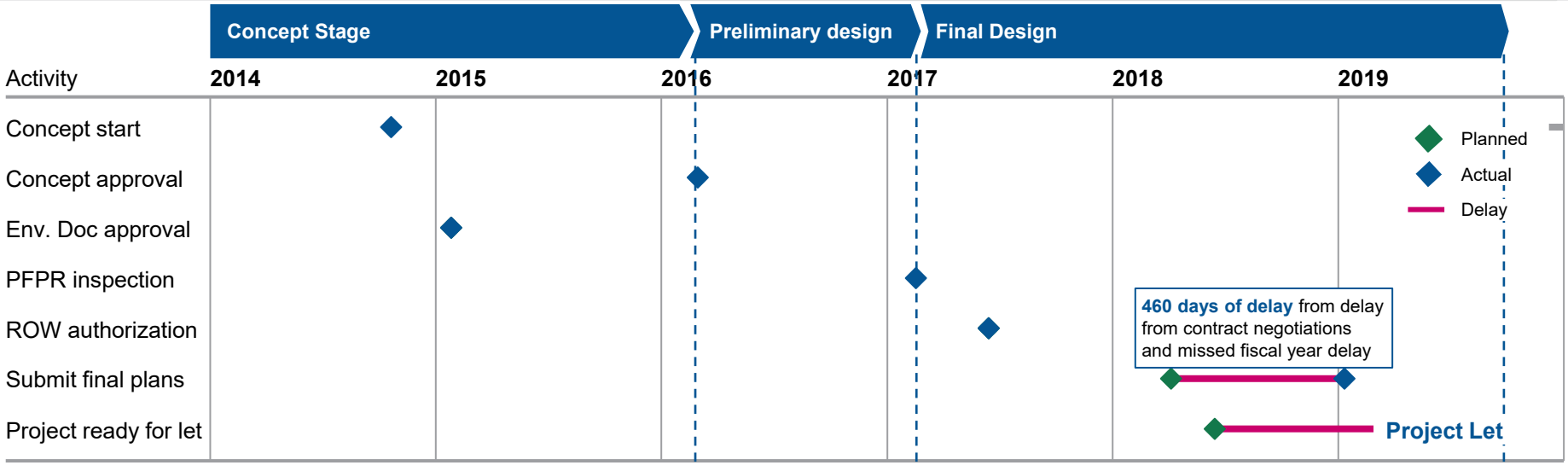
12 Project post-mortem: SR 334 @ Sandy Creek 11.5 MI SE Of Jefferson

Project type	Bridge replacement
County	Jackson
Allocation decision	Started Federal, switched to State
Environmental process	GEPA
Reason for allocation switch	Switched due to the availability of State Bridge Bond funds

		Planned[1]	Actual[1]	Overrun
Schedule		June 2018	September 2019	1.3 years
Cost	Federal	-	$1.0M	-
	State	-	$3.0M	-
	Total	$2.9M	$4M	$1.1M

Takeaways

- Consequence of delay should be clear to full project team – missed funding year means that **hard-to-meet funding source is not efficiently allocated**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

12 Additional project factors: SR 334 @ Sandy Creek 11.5 MI SE Of Jefferson

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Richardson, Darrell	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	Concept report
Amount of paperwork (H/M/L)	Low - Medium	PM interview
Level of rework	Low	PM interview
Historic property on site?	✗	PM interview
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PM interview
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

13 Project post-mortem: SR 382 Ext from CR 239 to SR 5/SR 515 New APD Corridor

Project type	New location
County	Gilmer
Allocation decision	Started Federal, switched to State
Environmental process	NEPA
Reason for allocation switch	Availability of HB170 funds

Schedule

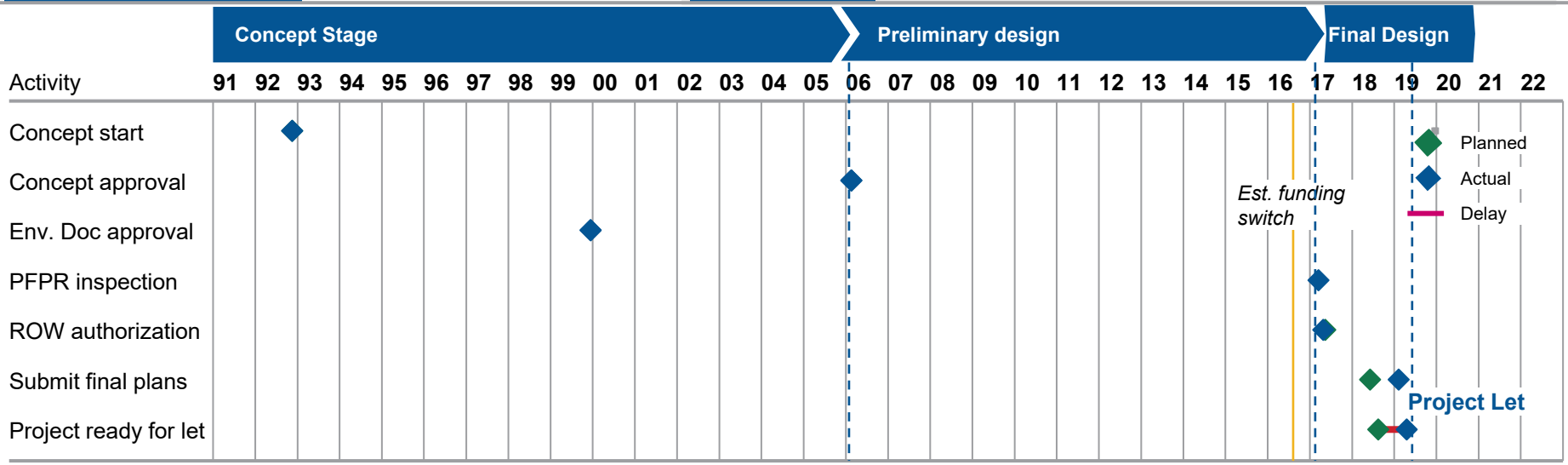
	Planned[1]	Actual[1]	Overrun
	August 2018	April 2019	**0.5 years**

Cost

	Planned[1]	Actual[1]	Overrun
Federal	-	-	-
State	-	$13.0	-
Total	$9.0M	$13.0	$0.6M

Takeaways

- **Availability of HB170 funds enable projects that have once stalled out to resurface** and be fast tracked for progress



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

13 Additional project factors: SR 382 Ext from CR 239 to SR 5/SR 515 New APD Corridor

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Burney, Cynthia	Given
Consultant or in house	GDOT Design	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Amount of paperwork (H/M/L)	Low	PM interview
Level of rework	Low	PM interview
Historic property on site?	✗	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✓	PM interview
Number of Alternatives completed?	0	PM interview
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

14 Project post-mortem: SR 92 From SR 3/US 41 To Glade Road

Project type	Widening
County	Cobb
Allocation decision	Started Federal, switched to State
Environmental process	GEPA
Reason for allocation switch	Availability of state funds

Schedule

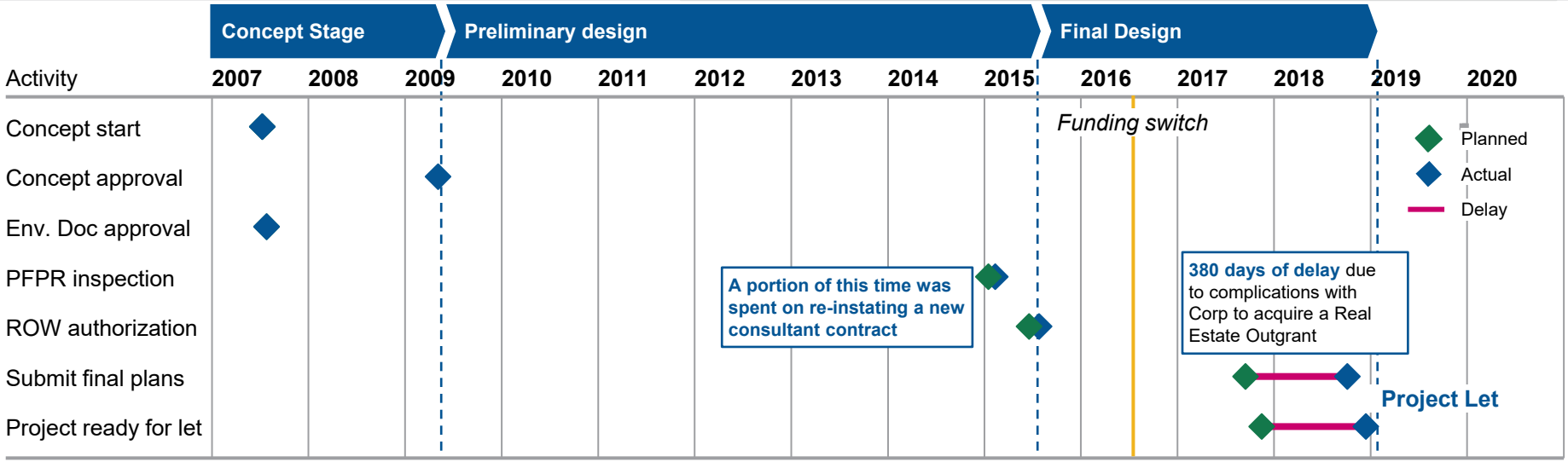
	Planned[1]	Actual[1]	Overrun
	November 2017	December 2018	1.1 years

Cost

	Planned[1]	Actual[1]	Overrun
Federal	-	-	-
State	-	$61.9M	-
Total	$60.2M	$61.9M	$1.7M

Takeaways

- **Effective coordination with the Army Corp of Engineers remains crucial for the timely deliver of state funded projects**



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

14 Additional project factors: SR 92 from SR 3/US 41 to Glade Road

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Black, Perry	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	Swapped to GEPA	PSR
Amount of paperwork (H/M/L)	High	PM interview
Level of rework	High	PM interview
Historic property on site?	✓	Concept report
Clear logical termini?	✓	PM interview
Endangered Species found?	✗	PSR
Number of Alternatives completed?	17	Concept report
Clearly affects existing federal project	✗	PM interview
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

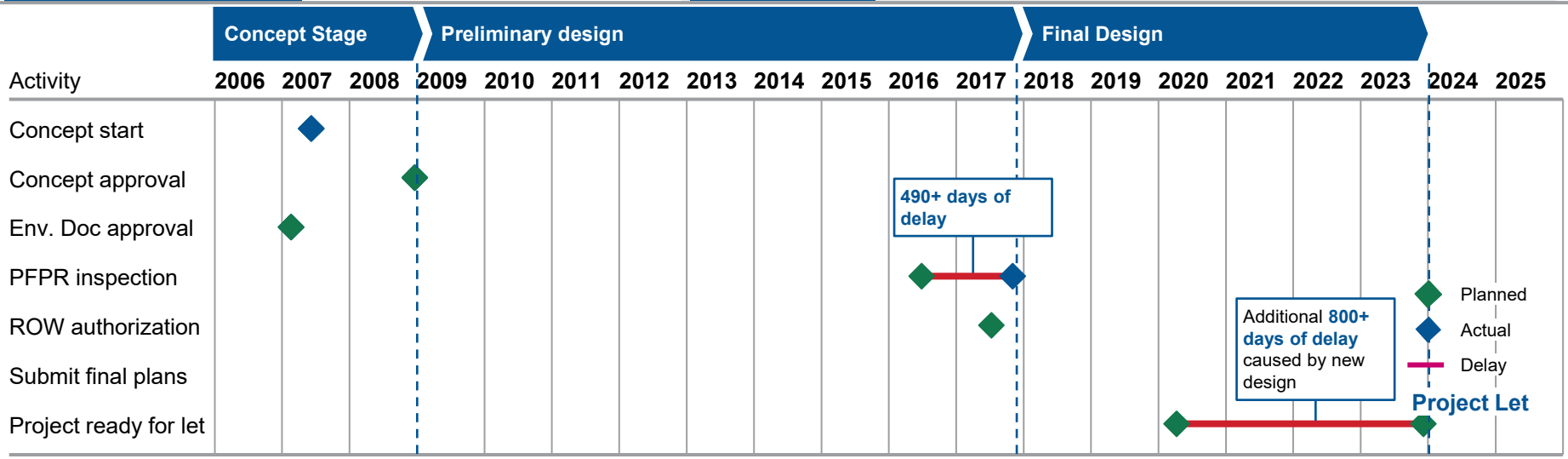
15 Project post-mortem: Jonesboro Rd from W Of SR 3/US 41/Clayton to I-75/Henry

Project type	Widening
County	Clayton
Allocation decision	Started Federal, switched to State
Environmental process	NEPA, switched to GEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		April 2020	December 2023	3.7 years
Cost	Federal	-	$16M	-
	State	-	$74M	-
	Total	$44M	$90M	$46M

Takeaways

- A revised concept design was proposed due to a **historic battlefield** that would split the project into phases and reduce the cost
- Project is **in process of being cancelled** due to budget concerns



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

15 Additional project factors: Jonesboro Rd from W Of SR 3/US 41/Clayton to I-75/Henry

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Caldwell, Shanda & Mobley	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Historic property on site?	✓	Concept report
Clear logical termini?	✓	Concept report
Endangered Species found?	Not available	PSR
Number of Alternatives completed?	Not available	Concept report
Clearly affects existing federal project	✓	Concept report
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

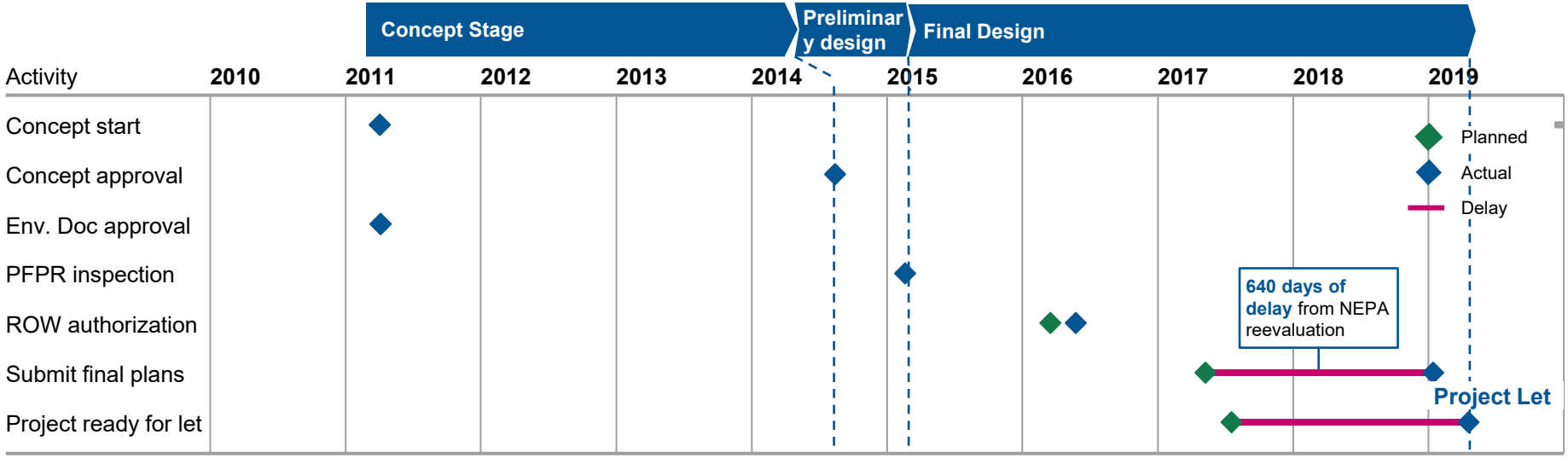
16 Project post-mortem: I-75 NB CD System From SR 331 TO I-285

Project type	Interchange
County	Clayton
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		July 2017	April 2019	1.7 years
Cost	Federal	-	$88M	-
	State	-	-	-
	Total	$43M	$88M	$45M

Takeaways

- Original NEPA evaluation was received January 2016 and **NEPA reevaluation approval** was obtained August 2018



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

16 Additional project factors: I-75 NB CD System From SR 331 TO I-285

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Evans, Tim	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	NEPA - CE	PSR
Historic property on site?	✓	Concept report
Clear logical termini?	✓	Concept report
Endangered Species found?	✗	PSR
Number of Alternatives completed?	3	Concept report
Clearly affects existing federal project	✓	Concept report
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

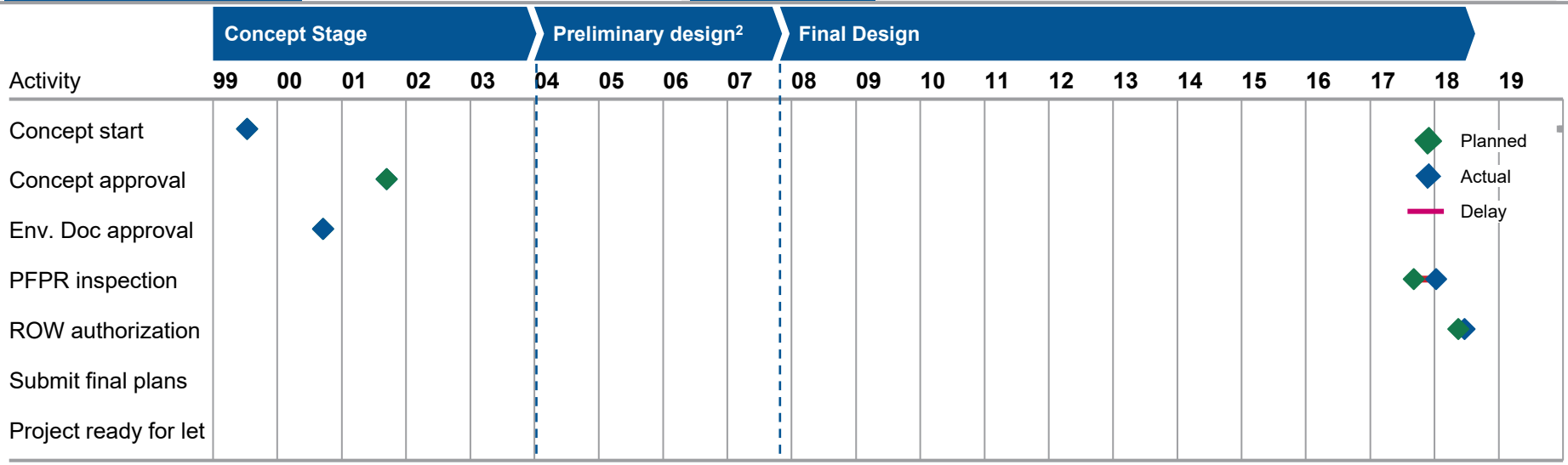
17 Project post-mortem: Bouldercrest Road at I-285

Project type	Interchange
County	DeKalb
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

		Planned[1]	Actual[1]	Overrun
Schedule		May 2020	Nov. 2021	1.5 year
Cost	Federal	-	$22.7M	-
	State	-	-	-
	Total	$44.8M	$81.9M	$37.1M

Takeaways

- Delays on this projects are caused by following federal processes required with an **Environmental Assessment** document



1 Concept start through Project Let
2 Estimated timeline
SOURCE: GDOT project data: PSR, Concept Report

17 Additional project factors: Bouldercrest Road at I-285

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Ezenekwe, Obi	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	NEPA, EA	PSR
Historic property on site?	✗	Concept report
Clear logical termini?	✓	Concept report
Endangered Species found?	✗	PSR
Number of Alternatives completed?	15	Concept report
Clearly affects existing federal project	✓	Concept report
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

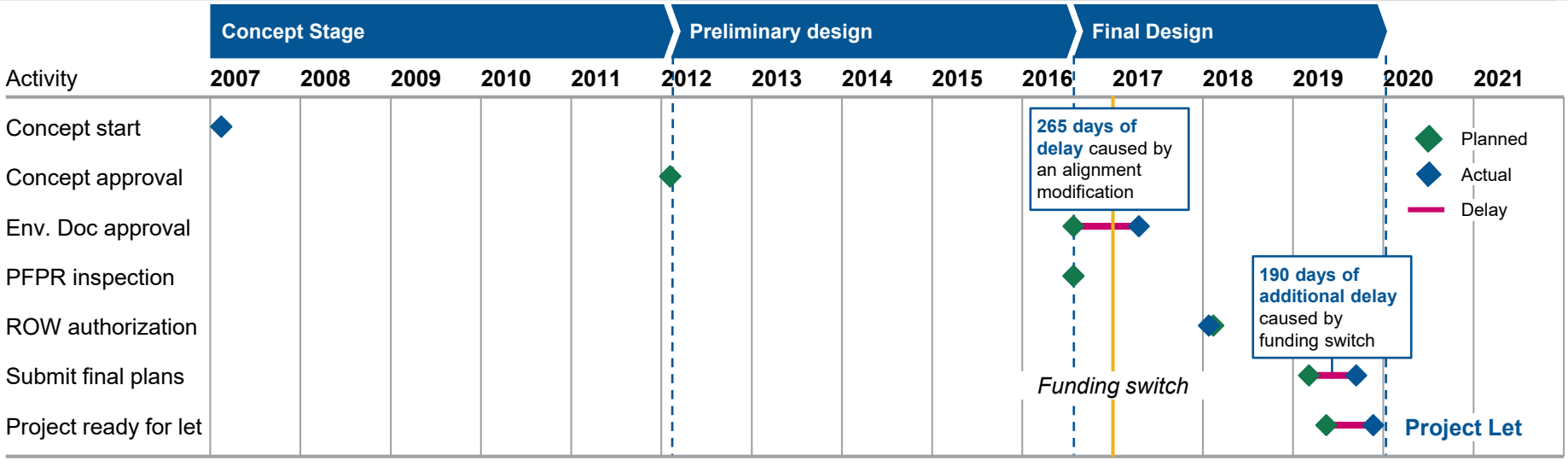
18 Project post-mortem: SR 8/SR 316/US 29 @ SR 53

Project type	Interchange
County	Barrow
Allocation decision	Started Federal, switched to State
Environmental process	Swapped to GEPA
Reason for allocation switch	An alignment modification

	Planned[1]	Actual[1]	Overrun
Schedule	May 2019	November 2019	**5 months**
Cost – Federal	-	-	-
Cost – State	-	$3.6M	-
Cost – Total	$28.1M	$3.6M	[27.5M]

Takeaways

- Detour revision and an **alignment modification** to improve the site resulted in a design change, reevaluation of the environmental studies, and switch of funding to HB170 funds



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

18 Additional project factors: SR 8/SR 316/US 29 @ SR 53

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
Internal or contracted PM	Black, Perry	Given
Consultant or in house	Consultant (not identified)	PSR
NEPA/GEPA documentation and level	GEPA	PSR
Historic property on site?	X	Concept report
Clear logical termini?	Not available	Concept report
Endangered Species found?	X	PSR
Number of Alternatives completed?	0	Concept report
Clearly affects existing federal project	X	Concept report
Wetland or water effects?	X	Concept report
Mandated to be federal?	X	Concept report/PSR

19 Project post-mortem: SR 11/SR 49 @ Rocky Crk & Overflow @ Tobesofkee Crk & Overflow

Project type	Bridge Replacement
County	Bibb
Allocation decision	Federally funded
Environmental process	NEPA
Reason for allocation switch	N/A

Schedule

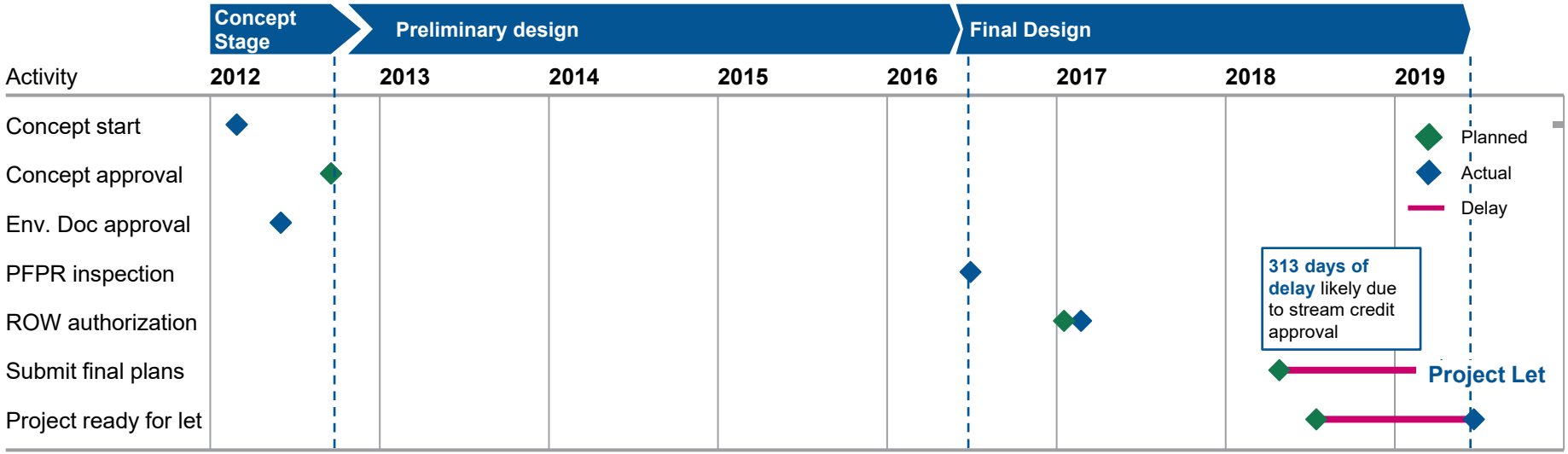
	Planned[1]	Actual[1]	Overrun
	July 2018	June 2019	1 year

Cost

	Planned[1]	Actual[1]	Overrun
Federal	-	$22.7M	-
State	-	-	-
Total	$21.9M	$22.7M	$0.8M

Takeaways

- Project **faced 300+ days of delay** in submitting final plans likely due to stream credit approval



1 Concept start through Project Let

SOURCE: GDOT project data: PSR, Concept Report

19 Additional project factors: SR 11/SR 49 @ Rocky Crk & Overflow @ Tobesofkee Crk & Overflow

Should inform funding allocation

Project factors to deliver across projects:	Value	Source of insight
PM name	Wicks, Kenneth	Given
Consultant or in house	GDOT	PSR
NEPA/GEPA documentation and level	NEPA	PSR
Historic property on site?	✗	Concept report
Clear logical termini?	✓	Concept report
Endangered Species found?	✗	PSR
Number of Alternatives completed?	4	Concept report
Clearly affects existing federal project	✗	Concept report
Wetland or water effects?	✓	Concept report
Mandated to be federal?	✗	Concept report/PSR

APPENDIC D. LAUNCH GUIDE

GDOT
Georgia Department of Transportation

GDOT Funding Allocation Launch Guide:

Updating the funding allocation process within the Plan Development Process

March 2020

Transforming our funding allocation process

GDOT is working to streamline its project delivery and has created an improved process

Overall context

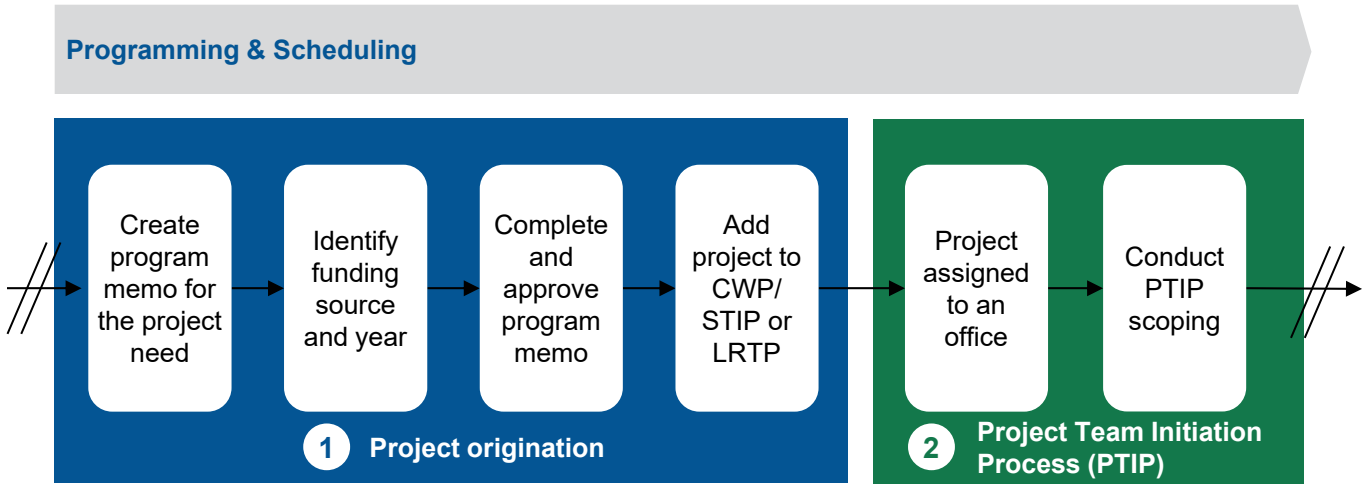
- For the first time, HB170 gives GDOT the opportunity to manage delivery of some projects entirely within Georgia, only engaging with the federal process when required
- To take advantage of this opportunity for efficiency, GDOT set out to design an approach to better inform the initial funding allocation decision and to revisit the decision at points through the Plan Development Process (PDP)

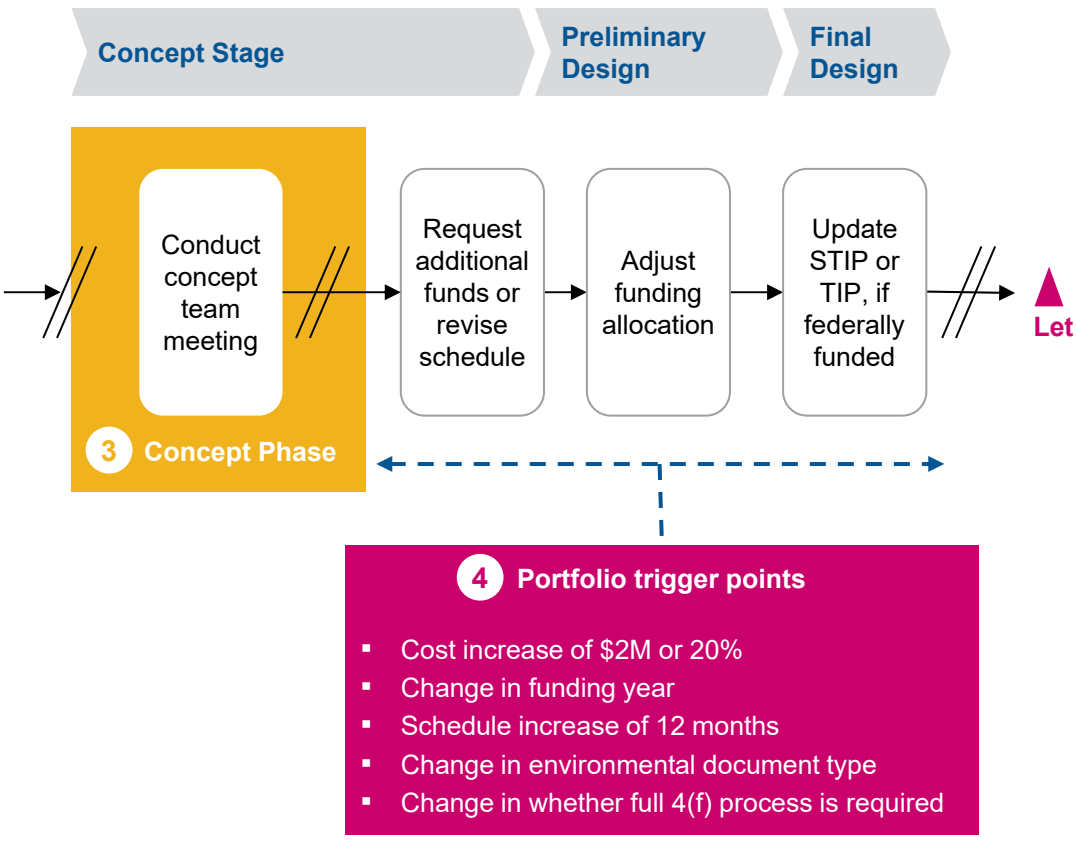
Changing the way we work can yield real benefits

- A better informed initial allocation decision
- Consistency of decision making across the PDP
- Fewer instances of rework due to switches in funding
- Ability to avoid bottlenecks by better informing junior staff of decision inputs and involving them in the decision process
- Ability to move projects into a funding window without rework

Plan Development Process

The funding allocation assessment should be made or revisited at four points during the PDP and information should be compiled and turned over to the relevant owner at each handoff point





Overall guidance on making and revisiting an allocation decision

This Launch Guide will support us in transforming the funding allocation process across the PDP handoff points

Instructions for Launch Guide

This launch guide applies to projects in the capital portfolio only.
There are four places in the Plan Development Process where a funding allocation assessment should be made

1. Project Origination
2. PTIP
3. Concept Phase
4. Trigger Points

Each section in this Launch Guide is meant to instruct and guide participants through this process. All pages include detailed instructions on how to use and complete the necessary documents.

Funding allocation assessments will rely on information sharing across different GDOT Offices throughout the process.

Throughout the process, be sure to provide explanations where appropriate and, when not sure, use a best guess to move the process forward.

Table of contents

1 Project Origination

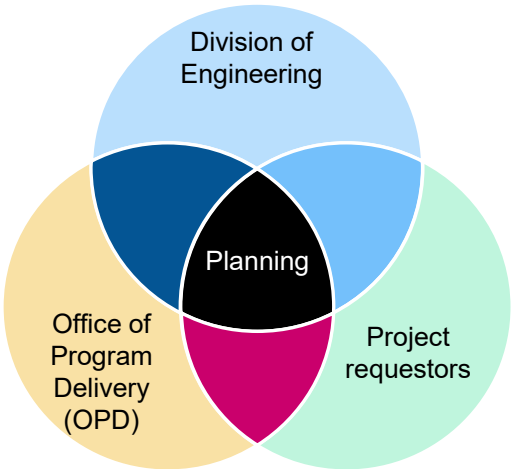
- Programming Request Form
- Project Information Checklist
- Flow Chart Decision Tool
- Programming Memo
- Handoff Packet

1 Project Origination

Instructions for making the initial allocation decision

Timing

Project origination occurs when the Office of Planning determines that there is a need for a project and then decides to program a project.



Planning should play an aggregator role at this stage

Planning is responsible for aggregating the key project information at project origination – through the **Programming Request Form** and **Project Information Checklist**

This information will be used to answer a set of questions as a part of the **Flow Chart Decision Tool** and inform the initial process and funding recommendation

Documents to use and complete

- ☐ **Programming Request Form**
- ☐ **Project Information Checklist**
- ☐ **Flow Chart Decision Tool**
- ☐ **Programming Memo**
- ☐ **Completed Handoff Packet**

Steps to completion

1. Planning should source project origination details and complete a **Programming Request Form**
2. Planning should fill out the **Project Information Checklist**, compiling information from the Division of Engineering
3. Planning should use the **Programming Request Form** and **Project Information Checklist** to guide project through the **Flow Chart Decision Tool**
4. Planning should complete the **Programming Memo** and record the **Flow Chart** process and funding recommendation
5. Finally, all of these completed materials should be compiled into a **Handoff Packet** and turned over to the Office of Financial Management

1 Project Origination: Programming Request Form

Planning is responsible for gathering input from other organizations. This includes completing a **Programming Request Form**. See an example of the required information, below.

Step 1: Fill out project origination details below. Inputs may be sourced from within Planning or from project requestors

Project context	Description	Unknown
Please provide description of requested project		
Please explain how project need was identified		
Please detail what coordination has occurred with local community to date. Has any other stakeholder or public involvement occurred or is any planned?		
Please detail any issues or concerns that have been identified (ex. dissenting voice, environmental risks, etc.)		
If not the Office of Planning, who is the local project sponsor?		

Required project details	Yes	No	Explanation
Does project propose new access to existing interstate facilities, revise access to existing interstate facilitates, or impact interstate air rights?			
Has this project been started by a local government and anticipated to use federal aid?			
Is this project a widening?			
Is this project a new location/new construction?			
If project is a widening, is additional ROW expected?			

Additional project details	Yes	No	Unknown	Explanation
Can project scope be disaggregated into discrete parts (ex. opening quick response, operational, etc.)?				
Can locals contribute funding towards the requested project (e.g., ROW or PE contributions)? Please detail why or why not. If yes – how much and in what timeframe?				

Requested attachments to **Programming Request Form,** as applicable and/or available:

- Project need statement
- Meeting minutes
- Project location map
- Traffic and safety analysis or additional project support documentation if available
- Cost estimates assumptions
- Planning study (if completed)

1 Project Origination: Project Information Checklist

Planning is responsible for gathering input from other organizations. This includes completing the **Project Information Checklist** to inform the initial allocation decision. Planning should include a short explanation for why they selected "Yes" or "No" and to explain any project complications that are relevant to the questions at hand

Step 1: Ask the Division of Engineering or other GDOT SMEs to answer the following questions, based on project limits defined in the Programming Request Form

Questions	Yes	No	Explanation
Does this project touch or impact federal land?			
If yes, Does the agency involved with the federal land require an additional NEPA document to be completed?			
Does project propose new access to existing interstate facilities, revise access to existing interstate facilitates, or impact interstate air rights?			

Step 3: Record the initial process and funding recommendation here (circle below)

Follow federal process and use federal funds

Process recommendation	Funding recommendation
No optionality: Project must follow federal process due to inherent project attributes	Maximize the use of federal funds (i.e., 80% of total project cost)

Follow federal process regardless of funds used

Process recommendation	Funding recommendation
Project should be initiated to follow the federal process to create optionality for funding decision	Project funding decision should be reviewed at a portfolio level

Follow state process and use state funds

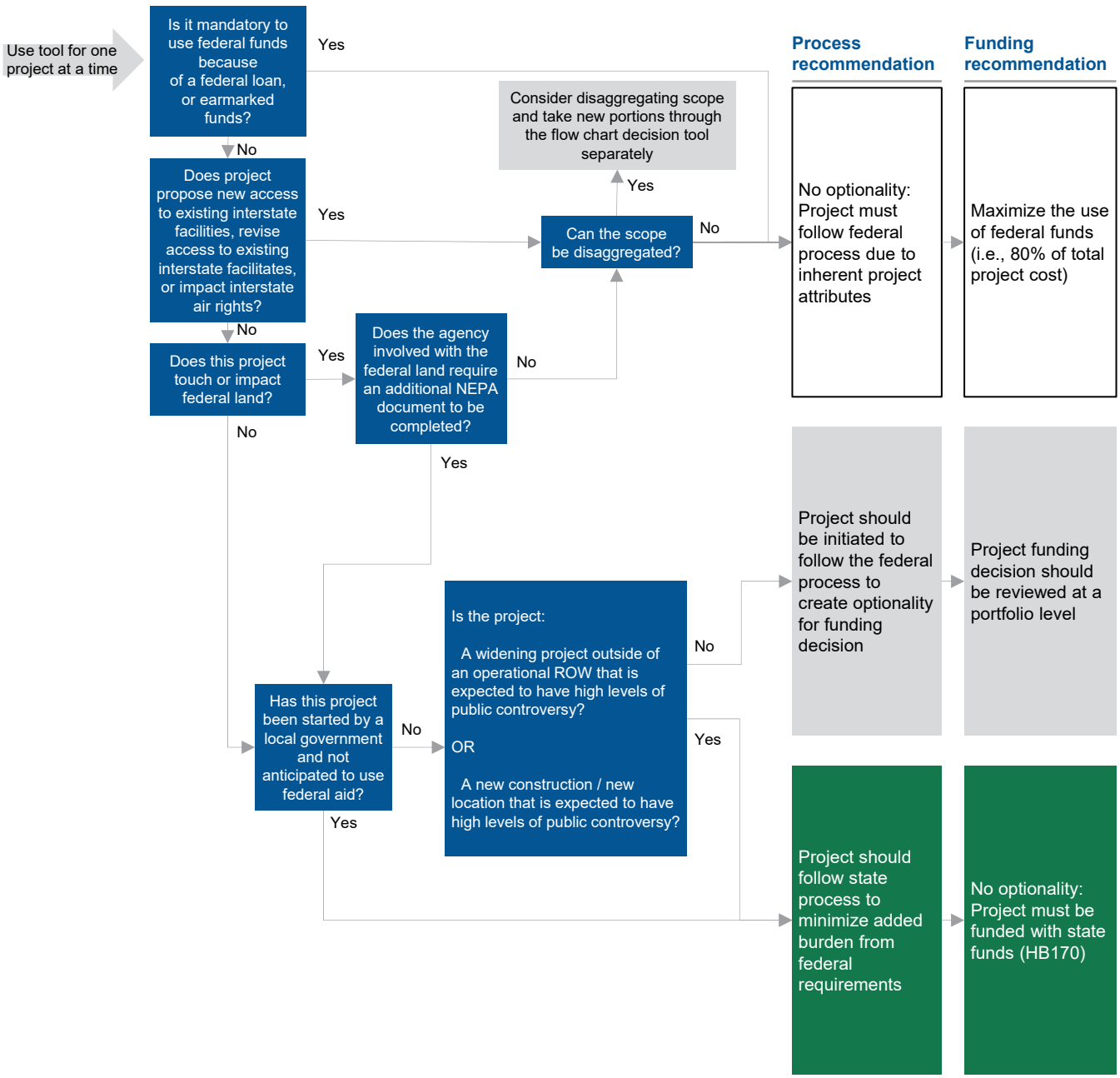
Process recommendation	Funding recommendation
Project should follow state process to minimize added burden from federal requirements	No optionality: Project must be funded with state funds (HB170)

1 Project Origination: Flow Chart Decision Tool

Planning should answer the questions in the **Flow Chart Decision Tool.**

Based on the answers, the **Flow Chart Decision Tool** will make a process and funding recommendation. The recommendation can be considered within the broader portfolio to reach an optimal funding allocation across GDOT's portfolio and should be coupled with the judgement of the individual decision-makers.

Planning should record the recommendation in the **Project Information Checklist** and **Programming Memo.**



1 Project Origination: Programming Memo

Planning is responsible for gathering input from other organizations. This includes completing a **Programming Memo**, detailing Project Origination history, and initial funding and process recommendations from the **Flow Chart Decision Tool**. See an example of the information of what could be included.

The Office of Planning requests programming a new [*project type]* project at [*location]* in [___] County, based upon information provided in the table below.

Project Justification Statement: The proposed project is intended to [____] (e.g., *improve traffic operations, mobility, and access to the interstate system, as well as enhance economic development).* This project *has the ability/does not have the ability to take advantage of earmarked funds*. This project *has the ability/does not have the ability to be awarded a federal loan or grant*. The project is proposed to be a [*local Let, GDOT Let, or is not a Let project].*

PI Number	Project Description	Project Type	Length	Phase	FY	Fund type (federal, state, or local)	Phase Cost Estimate ($)
TBD	Description	[Match TPro category]	[_] miles	SCP	[____]		TBD
				PE	[____]		TBD
				ROW	[____]		TBD
				CST	[____]		TBD
				UTL	[____]		TBD

Process and funding recommendations (circle recommendations):

Follow federal process and use federal funds

Process recommendation	Funding recommendation
No optionality: Project must follow federal process due to inherent project attributes	Maximize the use of federal funds (i.e., 80% of total project cost)

Follow federal process regardless of funds used

Process recommendation	Funding recommendation
Project should be initiated to follow the federal process to create optionality for funding decision	Project funding decision should be reviewed at a portfolio level

Follow state process and use state funds

Process recommendation	Funding recommendation
Project should follow state process to minimize added burden from federal requirements	No optionality: Project must be funded with state funds (HB170)

If you have any questions, please contact _____ (Phone number: ____, Email:_____)

APPROVED: _____ Date: _____
Director of Planning

APPROVED: _____ Date: _____
Chief Engineer

1 Project Origination: Handoff Packet

Handoff Packet details

The **Handoff Packet** is intended to ensure a smooth turnover between the owners of each stage of the funding allocation process, to reduce re-work, and to create an information trail for individuals who might be unfamiliar with the project to quickly get up-to-speed.

What documents should be included?

- ☐ Completed **Programming Request Form**, including any attachments and updates to original form
- ☐ Completed **Project Information Checklist**, with **Flow Chart Decision Tool** output
- ☐ Completed **Programming Memo**, with project need statements and notice of allocation decision

Who should sign off on the Programming Memo?

- Director of Planning, Chief Engineer

Where should the Handoff Packet live and when should the handoff occur?

- When Planning has compiled the necessary information, the **Handoff Packet** should be placed in a temporary holding folder on ProjectWise and sent to OFM
- When OFM creates a PI#, Planning should move the **Handoff Packet** to the PI# folder on ProjectWise for all to access
- The next phase begins when Program Control assigns the project to an office (OPD in this case)

2 PTIP

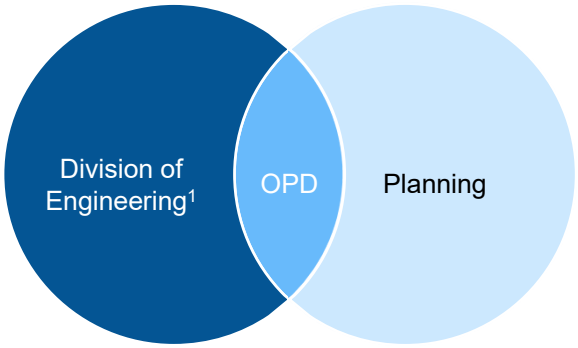
- Project Information Checklist
- Flow Chart Decision Tool
- Handoff Packet

2 PTIP

Instructions for revising allocation decision at PTIP

Timing and participants

The PTIP phase begins when Program Control assigns an office to move the project forward. The PTIP meeting should be used to facilitate a conversation on funding choices, as well as surfacing other important project details. This phase includes input from Planning (through the Handoff Packet), the Division of Engineering, OPD, the District, Utility offices, and any other office that will be involved in the project.



OPD should play an aggregator role

OPD is responsible for moving the project through the PDP and should fill out the **Project Information Checklist** and run the project through the **Flow Chart Decision Tool** in advance of the PTIP meeting (facilitated by government estimator)

The PTIP meeting discussion will be used to confirm **Flow Chart Decision Tool** output and determine whether a change is needed from the process and funding recommendation, since Project Origination.

Documents to use and complete

- ☐ **Project Information Checklist**
- ☐ **Flow Chart Decision Tool**
- ☐ **Compiled Handoff Packet**

Steps to completion

1. OPD should understand Project Origination details in advance of PTIP meeting.
2. OPD should fill out the **Project Information Checklist**, compiling information from the OPD leadership and OES in advance of the PTIP meeting
3. OPD should use the **Project Information Checklist** to guide the project through the **Flow Chart Decision Tool** and determine whether a revision to the process and funding recommendation is needed
4. OPD should verify this decision at the PTIP meeting and record the final decision as a part of the **Project Information Checklist**
5. All associated forms should be compiled into a **Handoff Packet** to ensure continuity

1 The District and Utilities offices should be included at the PTIP meeting itself

2 PTIP: Project Information Checklist (1/2)

OPD owns this phase of work and is responsible for gathering input from other organizations. This includes completing the **Project Information Checklist** to inform the allocation decision. When completing the **Project Information Checklist**, when the answer to a question is "No," OPD should include a short explanation for why this is the case. Additionally, OPD should use the explanation column to explain any project complications that are relevant to the questions at hand.

Step 1: Review Programming Request Form and Project Information Checklist from Project Origination. Have project details changed? If so, revise both forms.

Step 2: In advance of PTIP meeting, ask OES answer the following questions:
If federalized, what environmental document type will be likely (circle below)?
PCE CE EA EIS

Is there the likelihood for a full 4(f) process to be required (circle below)?
Yes No

Additionally, ask the Division of Engineering to answer the following questions to the best of their ability – these questions can help facilitate the PTIP discussion:

Questions	**Description**			
Additional 4(f) details: Please provide more details on the likelihood of a full 4(f) process being required				
	Yes	**No**	**Confidence in your answer (1-low, 5-high)**	**Explanation**
Does the project require work in a regulatory floodway?				
Is this project in a developed area that would limit the number of required alternatives?				
Are there specific advantages from having either FHWA or the Corp as the lead agency? What is the general level of coordination expected?				

2 PTIP: Project Information Checklist (2/2)

OPD owns this phase of work and is responsible for gathering input from other organizations. This includes completing the **Project Information Checklist** to inform the allocation decision. When completing the **Project Information Checklist**, when the answer to a question is "No," OPD should include a short explanation for why this is the case. Additionally, OPD should use the explanation column to explain any project complications that are relevant to the questions at hand.

Step 3: In advance of the PTIP meeting, ask OPD leadership to answer the following questions to the best of their ability – these questions can help facilitate the PTIP discussion:

Questions	Yes	No	Confidence in your answer (1-low, 5-high)	Explanation
Is this project being coordinated with a project that already has funding allocated against it? If yes, highlight during PTIP meeting				
Can project scope be disaggregated into discrete parts (ex. opening quick response, operational, etc.)?				

Step 4: Based on the answers from Step 1, 2, and 3, complete the Flow Chart Decision Tool and confirm with the broader group at PTIP meeting.

Step 5: Record the initial process and funding recommendation here (circle recommendations, below).

Follow federal process and use federal funds

Process recommendation	Funding recommendation
No optionality: Project must follow federal process due to inherent project attributes	Maximize the use of federal funds (i.e., 80% of total project cost)

Follow federal process regardless of funds used

Process recommendation	Funding recommendation
Project should be initiated to follow the federal process to create optionality for funding decision	Project funding decision should be reviewed at a portfolio level

Follow state process and use state funds

Process recommendation	Funding recommendation
Project should follow state process to minimize added burden from federal requirements	No optionality: Project must be funded with state funds (HB170)

Is this a change in decision from the initial process and funding recommendation?

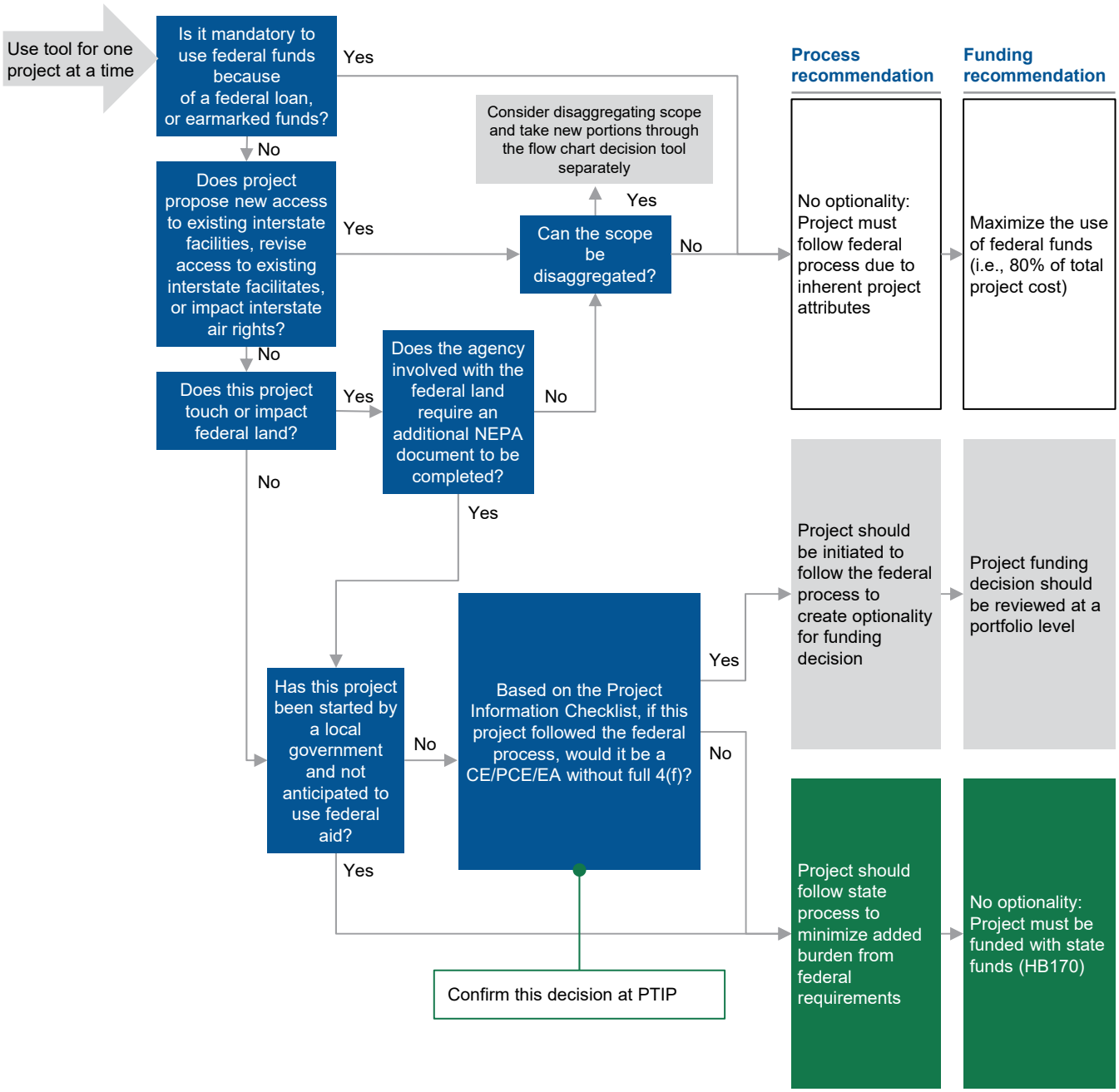
Yes No

2 PTIP: Flow Chart Decision Tool

OPD owns this phase of work and should answer the questions in the **Flow Chart Decision Tool** to determine if there is a "default" process recommendation.

Based on the answers, the **Flow Chart Decision Tool** will make a process and funding recommendation. The recommendation can be considered within the broader portfolio to reach an optimal funding allocation across GDOT's portfolio and should be coupled with the judgement of the individual decision-makers.

OPD should record the recommendation in the **Project Information Checklist** and **Programming Memo.**



2 PTIP: Handoff Packet

Handoff Packet details

The **Handoff Packet** is intended to ensure a smooth turnover between the owners of each stage of the funding allocation process, to reduce re-work, and to create an information trail for individuals who might be unfamiliar with the project to quickly get up-to-speed.

What documents should be included?

☐ Completed **Project Information Checklist**, with **Flow Chart Decision Tool** output

Who should sign off on documents?

- Government Estimator or personnel charged with conducting PTIP should obtain a final sign off from the Director of Program Delivery (The OPD OH, AOH and DPM can be a part of this review/approval process)

Who should the handoff packet go to?

- The handoff packet should be saved in Project Wise for handoff to PM

When should the handoff occur?

- Prior to the Concept Phase or when a PM is assigned

3 Concept Phase

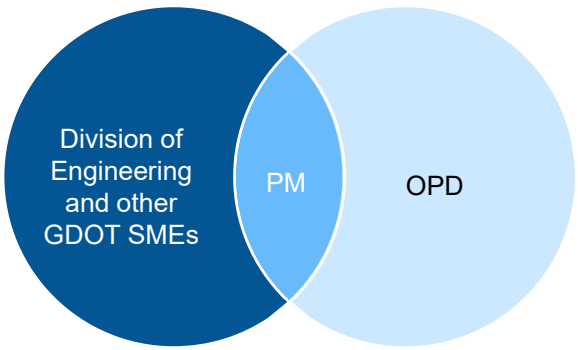
- Project Information Checklist
- Flow Chart Decision Tool
- Handoff Packet

3 Concept Phase

Instructions for revising allocation decision at Concept Phase

Timing and Participants

Concept Phase occurs as part of the PDP. By Concept Phase, a PM has been assigned. The Concept Team Meeting is used to discuss project details and confirm the previously determined funding choices - and should include Planning, Engineering (including OES), OPD, and any other involved office. This stage is the last place to make a funding allocation change without considerable rework.



Documents to use and complete

- ☐ **Project Information Checklist**
- ☐ **Flow Chart Decision Tool**
- ☐ **Compiled Handoff Packet**

The PM should play an aggregator role

The PM is responsible for moving the project through the PDP and should fill out the **Project Information Checklist** and run the project through the **Flow Chart Decision Tool** in advance of the Concept meeting.

The Concept Team Meeting discussion will be used to confirm **Flow Chart Decision Tool** output and determine whether a change is needed from the process and funding recommendation, since revaluation at PTIP.

Steps to completion

1. The PM should fill out the **Project Information Checklist**, compiling information from OPD leadership and the Division of Engineering in advance of the Concept Team Meeting
2. The PM should use the **Project Information Checklist** to guide the project through the **Flow Chart Decision Tool** and determine whether there is an update to the process and funding recommendations; the PM should be ready to discuss at the Concept Team Meeting
3. The PM should then attend the Concept Team Meeting, verify the information they have is complete and correct, and take the Concept Team Meeting notes
4. In the case of a change in PM, all of these materials should be compiled into a **Handoff Packet** and turned over to the new owner

3 Concept Phase: Project Information Checklist (1/2)

The PM owns this phase of work and is responsible for gathering input from other organizations. This includes completing the **Project Information Checklist** to inform the allocation decision. When completing the **Project Information Checklist**, when the answer to a question is "No," the PM should include a short explanation for why this is the case. Additionally, the PM should use the explanation column to explain any project complications that are relevant to the questions at hand.

Step 1: Review Project Information Checklist from PTIP. If documents are missing information, reach out to Planning and OPD to understand project details. Have project details changed? If so, revise both forms.

Have project details changed? If so, revise the checklist.

Step 2: In advance of Concept Team Meeting, ask OES to complete the following questions:

If federalized, what environmental document type will be likely (circle below)?
PCE CE EA EIS

Is there the likelihood for a full 4(f) process to be required (circle below)?
Yes No

Additionally, ask OES to answer the following questions to the best of their ability – these questions can help facilitate the Concept Team Meeting discussion.

Questions	**Description**			
Additional 4(f) details: Please provide more details on full 4(f) process likelihood				
	Yes	**No**	**Confidence in your answer (1-low, 5-high)**	**Explanation**
Does the project require an individual 404 permit?				
Are adverse effects expected to endangered species and what are the risks?				

3 Concept Phase: Project Information Checklist (2/2)

The PM owns this phase of work and is responsible for gathering input from other organizations. This includes completing the **Project Information Checklist** to inform the allocation decision by aggregating inputs. When completing the **Project Information Checklist**, when the answer to a question is "No," the PM should include a short explanation for why this is the case. Additionally, the PM should use the explanation column to explain any project complications that are relevant to the questions.

Step 3: In advance of Concept Team Meeting, ask the Office of Environmental Services, Traffic Ops, District Traffic Engineer/Preconstruction Engineer, and/or other GDOT SMEs to answer the following questions to the best of their ability – these questions can help facilitate the Concept Team Meeting discussion:

Questions	Yes	No	Confidence in your answer (1-low, 5-high)	Explanation
Are future noise levels expected to exceed abatement criteria?				
Is there the possibility of establishing precedent for future actions with significant effects?				
Can project scope be disaggregated into discrete parts (ex. opening quick response, operational, etc.)?				

Step 4: Based on the answers from Step 1, 2, and 3, complete the Flow Chart Decision Tool and confirm with the broader group at Concept Team Meeting.

Step 5: Record the initial process and funding recommendation here (circle recommendations, below).

Follow federal process and use federal funds

Process recommendation	Funding recommendation
No optionality: Project must follow federal process due to inherent project attributes	Maximize the use of federal funds (i.e., 80% of total project cost)

Follow federal process regardless of funds used

Process recommendation	Funding recommendation
Project should be initiated to follow the federal process to create optionality for funding decision	Project funding decision should be reviewed at a portfolio level

Follow state process and use state funds

Process recommendation	Funding recommendation
Project should follow state process to minimize added burden from federal requirements	No optionality: Project must be funded with state funds (HB170)

Is this a change in decision from the initial process and funding recommendation?

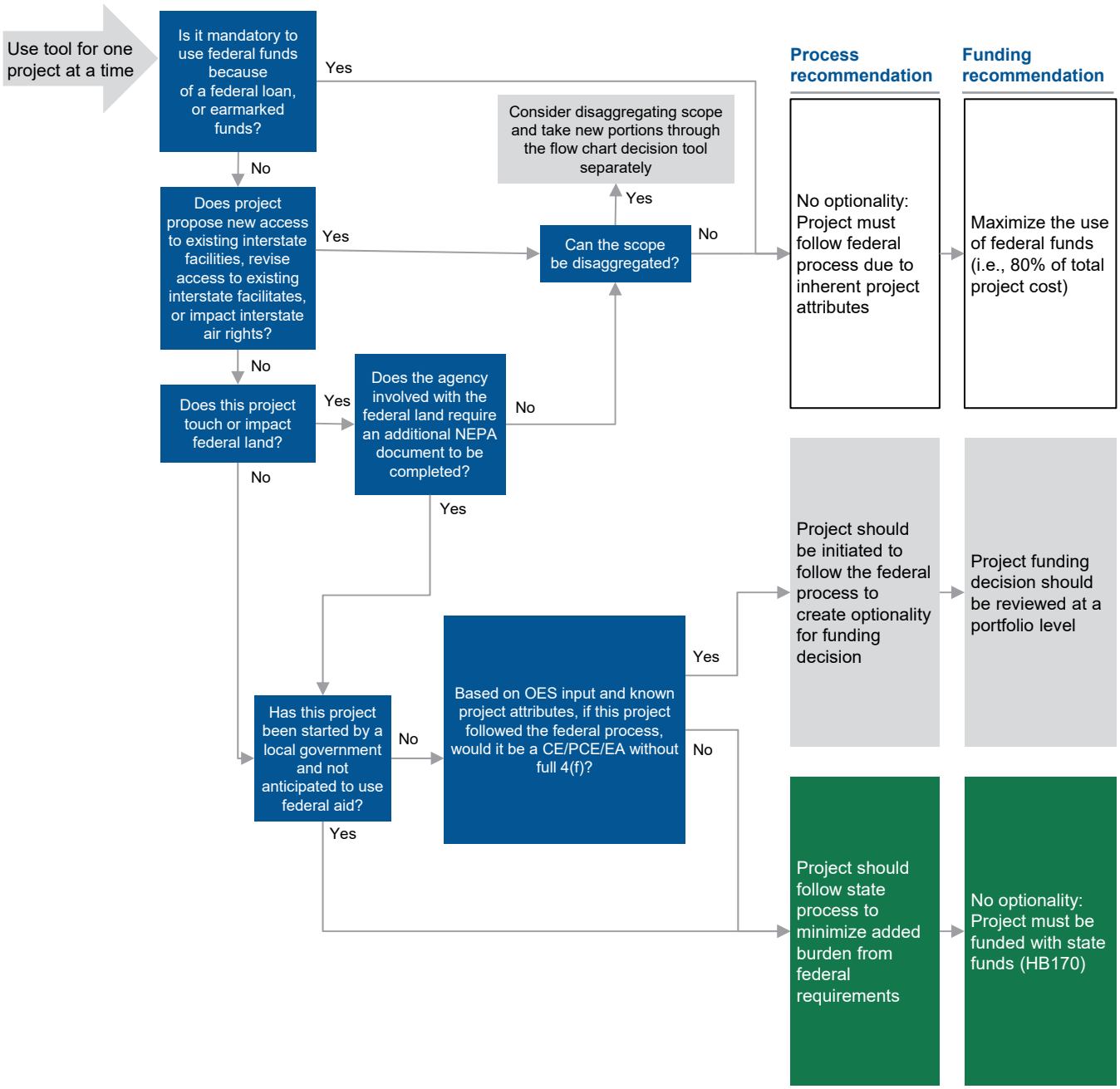
Yes No

3 Concept Phase: Flow Chart Decision Tool

The PM owns this phase of work and should answer the questions in the **Flow Chart Decision Tool** to determine if there is a "default" process recommendation.

Based on the answers, the **Flow Chart Decision Tool** will make a process and funding recommendation. The recommendation can be considered within the broader portfolio to reach an optimal funding allocation across GDOT's portfolio and should be coupled with the judgement of the individual decision-makers.

The PM should record the recommendation in the **Project Information Checklist** and **Programming Memo.**



3 Concept Phase: Handoff Packet

Handoff Packet details

The **Handoff Packet** is intended to ensure a smooth turnover between the owners of each stage of the funding allocation process, to reduce re-work, and to create an information trail for individuals who might be unfamiliar with the project to quickly get up-to-speed.

What documents should be included?

☐ Completed **Project Information Checklist**, with **Flow Chart Decision Tool** output

Who should sign off on documents?

- District Program Manager and OPD Management (including Director, OH and DPM)

Who should the handoff packet go to?

- New PM

When should the handoff occur?

- If a PM switch happens

4 Other Trigger Points

- Change in Project Understanding Form

4 Other Trigger Points

Instructions for revising allocation decision at Trigger Points

Timing

Trigger Points happen if any of the following events occur:

- Cost increase of $2M or 20%
- Change in funding year
- Schedule increase of 12 months
- Change in Environmental Document Type
- Change in whether full 4(f) process is required

Documents to use and complete

- ☐ **Change in Project Understanding Form**

The PM should play a 'watchman role'

It is the PM's responsibility to track this information and alert their District PM in the case of a Trigger Point. Together, District PM and PM should evaluate the **Project Information Checklists** and see how the Trigger would change the project details.

The PM is then responsible for filling out a **Change in Project Understanding Form** and submitting it to the Director of Program Delivery and the Planning Office.

Steps to Complete

1. The PM should alert a District PM in case of Trigger Point
2. Next, the PM should follow up with all involved offices to understand any change to most recent version of Project Information Checklist
3. The PM and District PM should assess whether there is a material difference in project details
4. The PM should fill out a **Change in Project Understanding Form** and submit to Director of Program Delivery for Approval
5. Once approved, the PM is responsible for communicating any requested changes to the Planning Office

4 Trigger Point: Change in Project Understanding Form

The PM owns this phase of work and is responsible for gathering input from other organizations. This includes completing the **Change in Project Understanding Form**, detailing the Trigger Point and changes to project details. The PM should also explain their recommendation for project funding.

Trigger Event (circle below):

- Cost increase of $2M or 20%
- Change in funding year
- Schedule increase of 12 months
- Change in Environmental Document Type
- Change in whether full 4(f) process is required
- Other: _____

Trigger Explanation:

Changes to project details:

Recommendation for project funding: